OBSERVATIONS

ON

HEPATIC DISEASES,

INCIDENTAL TO EUROPEANS

IN THE

EAST-INDIES.

By STEPHEN MATHEWS,

SURGEON IN THE HONOURABLE UNITED EAST-INDIA COMPANY'S SERVICE,

AND

Formerly of the Duke of Portland East-Indiaman.

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S. D. Townsend, M. D.

Aug 5. 1869.

TO

Sir Henry Fletcher, Baronet,

MEMBER OF PARLIAMENT

FOR THE

COUNTY OF CUMBERLAND,

AND

CHAIRMAN OF THE HONOURABLE THE COURT OF DIRECTORS OF THE UNITED COMPANY OF MERCHANTS TRADING TO THE EAST-INDIES.

SIR,

THE very great honour you have conferred on me, by patronizing the following ſheets, is an additional teſtimony to the world of that amiableneſs which

ſo eminently diſtinguiſhes your character among all ranks of the people. So benevolent a diſpoſition, and which is ever diſplaying its influence, cannot fail of exciting admiration and applauſe. Alive only to theſe impreſſions, permit me to contribute my moſt grateful thanks for this public mark of your favour; a favour which muſt convince mankind that every attempt (however trivial) which may any ways tend to alleviate the diſtreſſes of, or produce the ſmalleſt advantages to the ſervants in the

Honourable

Honourable Company's ſervice, will ever meet with your approbation and encouragement.

I am, SIR,

With the greateſt reſpect,

Your much obliged,

And moſt obedient

Humble ſervant,

STEPHEN MATHEWS.

London, May 1, 1783.

DEDICATION

Honourable Company's service,

will ever meet with your appro-

bation and encouragement.

I am, Sir,

With the greatest respect,

Your much obliged,

And most obedient

Humble servant,

STEPHEN MATTHEWS.

London, May 1, 1783.

PREFACE.

WE do not intend to amuſe our readers by commenting on the utility of the following Obſervations, or by enumerating the advantages that may ariſe from a more extenſive and general knowledge of the diſorders peculiar to the Honourable Company's ſettlements in the Eaſt-Indies) enlarge on the principles hereafter advanced: on the contrary, we have endeavoured to render the whole as conciſe and comprehenſive as the nature of the ſeparate parts would admit, being well aſſured, that by ſtrictly adhering to the exact ſtate of each individual's caſe, and from thence drawing our concluſions, we ſhould not only be more preciſe on the ſubject, but arrive at a greater degree of certainty and perfection.

We

We have divided this Work into three parts, and each part into different chapters, for the more eaſy reference to any particular enquiry that may be wanted, and alſo to make it more conſpicuous and clear.

The examinations and compariſons of the blood, in the two different diſorders, were made as carefully as poſſible, and the diſſections were alſo minutely attended to, that the illuſtrations might be more convincing, and corroborate the ſentiments entertained of the ſeat and exiſtence of the complaints; which proofs, perhaps, may either ſerve as a foundation for other gentlemen of the faculty, who are not ſo converſant with theſe diſorders, by not having the ſame opportunities, to ſatisfy themſelves, or tend to promote more univerſal inſpection.

The following ſheets are the reſult of an extenſive and ſucceſsful practice, digeſted

geſted from the daily minutes and extracts made at the different periods of the diſeaſes, which we flatter ourſelves have enabled us to relate minutely and circumſtantially the moſt material obſervations that are requiſite for information, either to diſtinguiſh the cauſes and nature of theſe diſeaſes, or to adopt and promote a mode of application ſuitable to the exigencies of the patients. This has been our principal view in the compilation of the ſubſequent work: and however inaccurate in deſcription it may be, we reſt it entirely on our indulgent readers; truſting that the intention of benefiting mankind, by attempting to mitigate the ravages of deſtructive diſtempers, will in ſome meaſure expiate for the imperfections and inelegance of the compoſition.

ERRATA.

Page.	Line.	
27	3	*for* attain *read* retain.
42	27	*for* precedes *read* proceeds.
52	10	*for* posts *read* ports.
67	4	*for* the epithet *read* our opinion.
71	2	*for* British settlements *read* British and Spanish settlements.
88	25	*for* alvetics *read* aloetics.
95	20	*for* cure *read* remission.
113	5	*for* the patients *read* the enfeebled subjects.
114	13	*for* apthee *read* apthæ.
128	25	*for* bark *read* brisk.
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138	3	*for* this viscus *read* the liver.
139	9	*for* afflicted *read* enfeebled.
140	25	*for* female *read* feeble.
163	15	*for* running off by *read* running off speedily by.

OBSERVATIONS

ON

HEPATIC DISEASES.

PART I.

CHAP. I.

Of the Cauſes of Hepatic Diſeaſes.

THE various changes and different appearances of bilious diſeaſes, the latent principles of which pervade the conſtitutions of the greateſt part of Europeans who reſide at, or have any intercourſe with, the Hon. Company's ſettlements in the Eaſt-Indies, are objects of ſuch moment as to juſtify the minuteſt inveſtigation of the ſources from which calamities ſo general proceed. Not that

a ſuperabundance of bile, or other hepatic complaints, are the ſole predominant diſeaſes of the Eaſt Indies; but we are inclined to think, that whatever may be the cauſes of many other diſorders, the general termination is blended with bilious ſymptoms, and whoever has had much practice in the Hon. Company's ſervice, or on board their ſhips, we make no doubt will readily acquieſce in this opinion.

This is farther juſtified by the mode of practice ſo univerſally adopted without much alteration, by the gentlemen of the faculty. Could we confine bilious complaints to the aged, who are doomed to encounter diſeaſe in ſome of its ſhapes before diſſolution takes place, or to thoſe who, naturally poſſeſſed of a good conſtitution, take unbounded liberties with their health, merely to accommodate themſelves to their convivial companions: could we, I ſay, confine complaints, which are inſeparable from irregularities, to thoſe only who by their imprudencies

merit

merit them, it would at once fix the fundamental point of medical diſquiſition on this ſubject. But, when we obſerve that perſons of all ages and both ſexes, the abſtemious and the debauched, the healthy and the vigorous, the aged and the young, are alike vulnerable by this potent enemy, we cannot too much lament our inability to prevent ſimilar complaints originating in wide and extenſive cauſes.

From this doctrine we are enabled to account for the inefficacy of medical practice; for where the ſymptoms are ſo fluctuating, and the ſame diſeaſe is continually aſſuming a different aſpect, the treatment of patients muſt be attended with no ſmall trouble and perplexity.

The judicious practice and valuable obſervations of many of the Company's ſurgeons will ever do them the greateſt honour; and we are fully warranted in obſerving, that the ſurgeons in the Company's ſervice, and on board their ſhips, have abilities equal to the arduous taſk of their employment.

The climate of the Company's ſettlements may be divided into three portions, viz. the hot, the rainy, and the cold ſeaſons. Two of theſe periods may be deemed unhealthy; for, although in the hot months there are not perhaps ſo many immediately ill, yet we generally obſerve that the firſt ſtamina of the diſeaſe are laid at this time.

Great and continued heats will ever be a primary cauſe of diſeaſe in the animal frame. Long and heavy rains, with ſudden appearances of the ſun raiſing offenſive exhalations from the moiſture of the earth, we are diſpoſed to think will be the acting power to the principles of diſeaſe originated in the former ſeaſon: and if we take a comparative view of the quantity of exerciſe uſed by the generality of Europeans, in theſe periods, with that of which they partake in the colder months, we ſhall be induced to believe that inactivity is an additional cauſe of bringing forward thoſe dormant ſymptoms of diſeaſe, which were before ripening to maturity. But the great period of epi-

epidemical diſtempers is generally fixed between the ceſſation of the rainy and the commencement of the dry cooler ſeaſon. This juncture is more alarming and pernicious to Europeans than any other ſeaſon of the year.

If we take a review of the ſtate of the atmoſphere during the rains, and the conſequences reſulting from the earth being overloaded with water, and the powers of abſorption choaked by the ſame cauſe, we ſhall eaſily conceive how diſagreeable ſuch a ſituation muſt prove, and moſt readily join our opinion with thoſe, who experience the fatality of theſe tranſitions. As the rains diminiſh, the ſun frequently burſts forth with great heat, and, as the ſeaſon declines, his appearance, though pleaſing, is more pernicious; for the ſun's rays, being almoſt continual, occaſion a heavy exhalation of various vapours, which cannot by any means be ſalutary. To an atmoſphere, therefore, impregnated with different effluvia, aſſiſted by the heat of the ſun peculiar to theſe climates, and the moiſture of the earth, we are not

in any ſuſpenſe, independently of other materials, to impute the prediſpoſing cauſes of bilious diſeaſes.

The effects of heat and moiſture on the animal frame are nearly alike, by producing relaxation and putreſcency; for, in examining the bodies of thoſe who fall by this diſeaſe, we obſerve a total relaxation of all the muſcular ſyſtem; and let the diſſection be ever ſo early after death, a great degree of putrefaction in the fluids of the ſtomach and abdominal viſcera. Neither is the putridity in the animal juices regulated by length of diſeaſe. The ſtrength and vigour of the ſuffering patient are a much more juſt criterion of the violence of putrefaction, than any we have for our inſtruction.

We find that long continued heats, or great moiſture, are productive of relaxation of the muſcular ſyſtem, and diſſolution of the animal fluids. To what degree are we to expect our patients to be attacked, who are affected by the combinations of theſe powerful cauſes acting on the

the frame of ſtrong muſcular men, whoſe juices are unimpaired, and their health heretofore entirely perfect. Certainly and invariably theſe perſons will ſuffer more, and be in much more imminent danger, than others of a contrary formation; and thoſe Europeans who have reſided long in India, although they are liable to frequent attacks of the ſame diſeaſe, yet have their habits and conſtitutions ſo tempered by the climate, that they will bear a much greater portion of diſeaſe, than others of the ſame habit, who are recently arrived from Europe. Theſe obſervations are common and well known to every European in India, therefore tend to corroborate and fix our opinion on this point.

The climate of India in itſelf is ſo pernicious to the conſtitutions of Europeans in general, as to occaſion diſeaſes of a moſt inveterate nature, and which, without the greateſt care and attention both of the phyſician and patient, will terminate either in obſtinate and cruel obſtructions, or by a more ſpeedy way deprive

the patient of all his flattering expectations of recovery, by the laſt great tribute nature can render to diſeaſe.

In this ſituation great reſpect ought to be paid by all thoſe who are valetudinarians, or who enjoy their portion of health, to regimen and exerciſe. However this advice may be tinctured with medical precept, yet, ſurely to the rational part of mankind the taſk will not ſeem too arduous, nor the means unpleaſing, particularly as the point in view is, to preſerve the greateſt bleſſing that can be beſtowed upon the human race.

Many in their line of employment are unavoidably expoſed to imprudencies of diet and other irregularities; others voluntarily plunge themſelves into various exceſſes. Theſe gentlemen will do well to conſider what powerful enemies they have to encounter, and the great chance there is againſt them of their ever being able to reinſtate their health: for from the effects of climate and their own injudiciouſneſs, every thing is to be apprehended; and how

how miſerable muſt the life of that man be, who is continually harraſſed by aches and pains, and whoſe every moment of relief is purchaſed by the repeated uſe of medicines! Theſe are obſervations which ought to teach us the value of health, and make us exert ourſelves cautiouſly to preſerve it.

The ſolids and fluids of the animal frame being ſo relaxed and diſſolved by the combined powers of heat, moiſture, putrid effluvia, and irregularities of different natures, that we cannot expect the various ſecretions which are inceſſantly going on for our ſupport and preſervation to be compleated or ſalubrious;—conſequently, ſome latent principles of diſeaſe will take place, and may perhaps a long time lie dormant, before the patient is awakened to his danger by the more inveterate ſymptoms of it; and if he does not inſtantly obtain medical aſſiſtance, the event will be very ſhort and fatal. Much therefore will depend on the due and moſt ſtrict obſervation of medical advice.

The relaxation, already produced by a long continuance of heat, naturally occaſions a great languor in the arteries, whereby their coats are deprived of their proper elaſticity, and the pulſations are ſo much enfeebled, that the momentum of the vital fluid is greatly retarded.

From this cauſe, which we may ſuppoſe the primary one of ſucceeding diſeaſes, occaſioned by a dulneſs of circulation, and a ſlow fulneſs of the blood's motion, which conſiderably diminiſhes the force of the acting powers in the animal fabric, every part of the human organization will undergo great and ſudden changes. From the want too of a regular tenſion and rigidity of the muſcular ſyſtem we obſerve many undue and imperfect ſecretions to ſucceed. The ſtate of the fluids, from the ſame circumſtances, will be impaired, and very irregular in their different channels; conſequently, for want of that particular power, which nature in a ſtate of health always commands, the juices will be rendered unfit for animal uſes. Hence obſtructions of different kinds

are

are too prevalent, and thoſe viſcera and canals which have the greateſt quantity of fluids paſſing through them, are moſt likely in this caſe to be the ſeat of the diſeaſe. For when the *vis reſiſtendi* of any body is accelerated or abated either progreſſively or retrogradely, we are to expect accumulations, with other inconveniences that will naturally follow. When this ſtate of putreſcency and relaxation has once fixed itſelf in the animal frame, we ſhall readily conceive the effect that moiſt air will have on bodies thus prepared for the reception of various complaints. The air being now filled with a great variety of particles exhaled from an inundated earth and nitrous ſoil, condenſed by the autumnal ſun, makes the effluvia abound with moſt pernicious qualities, which will invariably be taken up by the powers of abſorption, and likewiſe inhaled by the lungs. Theſe remote cauſes being drawn into one given focus (the human frame) the reſulting conſequences will not be tedious.

The

The mode of diet made uſe of by Europeans in India (although now conſiderably reſtrained) is by far too liberal for the habit of body and nature of the climate; and as all animal foods in hot and moiſt ſeaſons, have a very great ſeptic tendency, it ſurely is adviſeable to be abſtemious in this matter, and to regulate the quantity of liquors by that of diet; for when fiſh, fleſh, poultry and paſtry, with wine, beer, and ſpirits, cheeſe, butter, and fruit, are at one repaſt, all indiſcriminately plunged into the ſtomach, it is an evident fact, without entering into any chymical or phyſical reaſoning upon the ſubject, that the powers of digeſtion muſt be weakened, and the chyliferous juices badly aſſimilated. Hence indigeſtions, crapula, and flatulency immediately proceed, and if not ſpeedily relieved, the hepatic diſeaſes will moſt aſſuredly be fixed. From the reaſoning already employed, we may eaſily deduce that the greateſt preſervation of health principally reſts with the inhabitants themſelves; and however ineffectual phyſical admonition may prove on this ſubject,

ject, it will fully ſanctify this well-known adage, that "it is much eaſier to prevent diſeaſes than to cure them."

As the air, ſoil, and ſituation of the Hon. Company's ſettlements have ſome affinity to our ſubject, it will be neceſſary to take a curſory view of each before we proceed to relate its diſeaſes, and then, by forming a comparative proſpect of the whole, draw ſuch inferences as may tend to alleviate the diſtreſſes inſeparable from them.

CHAP.

CHAP. II.

Of the Air, Situation, and Soil of Calcutta.

CALCUTTA, in the province of Bengal, is the metropolis of all the Company's ſettlements: and is ſituated on the banks of the river Hughly (a branch of the great Ganges) which is navigable, ebbing and flowing exceedingly regular. At the different periods of ſpring and neap tides, the water ſwells and ſinks very much. By theſe means a great quantity of mud and foul earth is thrown on the banks of the river, which, during the flux and reflux of the tide, by the great continued heat of the ſun, emits a moſt diſagreeable and offenſive vapour in the atmoſphere. This occaſions all thoſe houſes near the banks of the river to be more unpleaſant than in the interior part of the ſettlement. Although the natives of this province are, in moſt particulars, remarkable for their cleanlineſs; yet, ſuch is the force of precept and cuſtom, that whenever nature prompts, a Hindoo

Hindoo pays no reſpect to place; neither has the police of Calcutta yet been able entirely to prevent this practice, and, until more ſevere penalties are inflicted, the grievance will certainly exiſt. It is a circumſtance much to be regretted, that the elegant range of buildings on the eſplanade, which are by far the moſt pleaſant of any in Calcutta, ſhould be ſo much incommoded by the continued aſſembling of the natives to pay their devoirs to the goddeſs Cloacina. The habitations are regularly and well built, the rooms ſpacious, lofty, and exceedingly well adapted to the heat of the climate, which, during the months of February, March, April, May, and June, is intenſely hot. The months of July, Auguſt, September, and October, may be deemed the moiſt and rainy ſeaſon, though it is not always exactly confined to theſe. November, December, and January are the cool and pleaſant months; and in this period Calcutta may vie with any part of the globe for ſalubrity and agreeableneſs. The country ſurrounding this town is a very large tract of low flat ground, unoccupied

pied by any hills or mountains; hence the air is not duly ventilated, which, during the rains, and ſome time after, is more humid and corrupt.

A ſecond great inconveniency is the impurity of the water; and if we are not miſtaken, it is the uſage with the inhabitants to reſerve the rain in jars, for their domeſtic uſes; and although there are many tanks in Calcutta, and ſome of them very large and deep, particularly one in the center of the great ſquare; yet, as many of theſe are mere reſervoirs of rain water, and but little aſſiſted by ſubterraneous ſprings, we are very confident that this muſt be pernicious to the human frame, and greatly aſſiſt in producing diſorders. The ſoil of the country for the moſt part, is ſandy clay, and nitrous earth, which, during the hot dry months, produces little or no vegetation; and by the great quantity of water that falls in the rainy period, the earth is overloaded, and cannot abſorb it faſt enough to prevent great quantities of ſtagnant pools from collecting in different

rent parts, which afford an additional humidity to the atmoſphere, and breed thouſands of inſects, which die and rot on the ground.

When the Monſoon * from the northward is thoroughly ſet in, the air becomes pure, dry, and very healthy, and in proportion to the duration of the different ſeaſons, we may eſtimate the healthineſs or ſicklineſs of the inhabitants: for, if the winter period is cold, and of long duration, the air will be ſo cleanſed and tempered, that very few diſeaſes will be epidemical or permanent; neither will the enſuing hot ſeaſon be productive of ſo many latent principles of diſeaſe. On the other hand, if the progreſs of the heat is long, intenſe, and ſucceeded by heavy and prolonged rains, we have every reaſon to apprehend a fatal and ſickly ſeaſon.

* Monſoon, a ſpecies of trade wind, peculiar to the Eaſt-Indies, which, for ſix months, blows nearly on

There are not many wood-lands contiguous to this ſettlement, which we naturally determine to be a favourable circumſtance; but there are many very large and extenſive lakes, with a great number of tanks, natural and artificial, which all tend to increaſe the moiſture of the atmoſphere, and preclude the ſalutary effects of variable and light winds. Diſeaſes generated at this time are much more tedious and difficult to remove, and their effects more ſeverely felt, than of thoſe complaints which ariſe from inflammatory and putreſcent ſources in the hot months. Another circumſtance meriting our conſideration, is the ſuppreſſion of exerciſe during the wet ſeaſon; for Europeans, at all times here, are rather inclined to indulgence; and if the neceſſary quantity of exerciſe or amuſement is not continued to which the conſtitution has been accuſtomed, the event will be productive of indiſpoſition. There are more errors committed

on the ſame point of the compaſs, and from the contrary on the other ſix.

by

by indulgence than exceſs of exerciſe, provided that after recreation and employment the neceſſary precautions are made uſe of to prevent the impreſſion of cold.

It will undoubtedly be a great improvement to this ſettlement, and alſo add much to its healthineſs, when the police have effected the great undertaking of draining, raiſing, and widening the ſtreets. By theſe means the accumulated ſtagnated water will be carried off, the ſtreets become more commodious and pleaſant, and the air leſs loaded with ſeptic miaſmata. The good effects ariſing from theſe labours will fully compenſate the inhabitants for any expence attending theſe improvements.

CHAP. III.

Of the Air, Soil, and Situation of Madraſs.

MADRASS is the capital ſettlement on the coaſt of Coromandel. It is an exceeding regular and well built town, circumſcribed with one of the moſt compact fortifications in the Eaſt-Indies. The air here, when the ſun is far advanced in the northern tropic, is for ſome part of the day intenſely hot; but as this is of ſhort duration, the inconveniencies ariſing from it are in no degree equal to thoſe at Bengal. Early before noon the cooling breezes ſet in from the ſea, and render the ſucceeding part of the day exceedingly pleaſant and ſalutary. This ſettlement may juſtly be deemed the Montpelier of India; for you ſcarce ſee one inhabitant, who is commonly prudent, carrying about him any trait of diſeaſe. We do not abſolutely aſſert that the atmoſphere would not be more ſalubrious, if effectual precautions were uſed to prevent the natives from making ſo much uſe of the beach; which being ſituated very near the houſes, and always directly

directly to windward of the ſettlement, is inceſſantly impregnating the air with offenſive odours. The land winds at this ſeaſon of the year are generally very hot and dry, though by no means unhealthy; for it is cuſtomary to ſleep in the air, out of the immediate current, without any pernicious conſequences attending it. The ſoil, both here and on the circumjacent country, is very dry, and moſtly ſandy; and although the country is one continued level, excepting a ſmall hill, called St. Thomas's mount, riſing a little above the ſurface of the ſea, the ſoil fully compenſates for the flatneſs, as the rains are but of ſhort duration, and not ſo violent and heavy as in the former ſettlement. The earth being of a much looſer texture, and having greater abſorbing powers, the pernicious effects of ſtagnant ſeptic pools accompanied with baneful exhalations, are ſeldom if ever experienced.

The bilious complaints that predominate here, are by no means ſo inveterate or fatal as at Calcutta, and hepatic ob-

ſtructions are more eaſily and ſpeedily cured. The fevers ariſing from inflammatory cauſes generally terminate in remittents, for which reaſon they much ſooner retreat by the powers of medicine. The great Monſoon, which takes place late in the autumn, is generally attended with briſk and ſtrong winds; therefore if the rains fall exceedingly heavy, the atmoſphere has not time to accumulate many infectious qualities, and the inhabitants have not any apprehenſions from a quantity of water lodging on the earth, which may be ſometimes tedious in abſorbing, though at this period it is not judicious to be too much expoſed to the nocturnal air. In the petit monſoon in the vernal ſeaſon, the ſame reaſoning will hold good; for ſhould the atmoſphere be too much impregnated with dampneſs, the relaxed ſtate of the body will be apt to imbibe moiſture, which will check and ſtop perſpiration (one of the firſt and beſt prognoſtics in this country of a ſound ſtate of health.) This will be the ſource of remitting fevers, hepatic, and ſometimes ſanguinary fluxes.

In

In this caſe, an early application to the faculty is abſolutely neceſſary, for by protracting the diſeaſe, the patient does not only prolong and render the cure more uncertain, but ſtands a very fair chance for its continuance, until the dry ſeaſon is thoroughly fixed. A ſecond cauſe may be eſtimated to originate in the quantity and quality of † fiſh of different genera, which make part of every inhabitant's diet; and although they are deſervedly eſteemed for their great perfection, yet we do venture to pronounce the effects of ſuch regimen to be diarrhæas and dyſenteries, particularly when aſſiſted by the co-operating powers of § cold flatulent fruits and ‡ vegetables. The reſidents of this ſettlement are not confined or neceſſitated to ſuffer the inconveniencies of inactive life: there are but few

† Prawns and other ſhell fiſh, eels, and cat fiſh, &c. are particularly ſeptic and purgative.

§ Plantanes, melons, and all other cold fruits, are highly pernicious.

‡ Cucumbers, and all of this genera, have a very great tendency to fermentation and putrefaction.

days in the year that they cannot partake of the pleaſure of riding, which, if we may be permitted to adviſe, is much more beneficial on horſeback than in a chariot, which is too inactive and indulgent.

The water which this ſettlement is ſupplied with, is remarkable for its purity and goodneſs, and is at all ſeaſons of the year very nearly at the ſame ſtandard of perfection, conſequently, this is a very ſingular advantage to the inhabitants, and the means of preventing many diſagreeable inconveniencies.

CHAP.

CHAP. IV.

Of the Air, Soil, and Situation of Bombay.

BOMBAY is an iſland ſituated on the north-weſt extremity of the Malabar coaſt, in nineteen or twenty degrees of north latitude, and ſeventy-five or ſix eaſt of London. It being within the fixed limits of the monſoon, the air is in general more freſh and durable than at Calcutta, and the extremes of intenſe heat are ſeldom prevalent; for however much the land winds may affect this ſettlement, yet it is an invariable obſervation, common to all, that the ſea breezes in either monſoon, will render ample refreſhment for the ſultry nocturnal airs.

The town is irregularly formed, and rendered more incommodious by the natives being permitted to reſide within the fortification (a circumſtance not allowed in any other part of India;) add to this inconveniency others of a more dangerous and diſagreeable nature, viz. the hoſpital being

being placed in the middle of the town, and the warehouſes for ſalted proviſions belonging to the navy contiguous to it, which are too often, receptacles for putrid rotten meat. They emit a moſt noiſome effluvia throughout the ſettlement. The police of this preſidency would do well to conſider the conſequences that are likely to take place from theſe cauſes, particularly in the time of war, when the ſtorehouſes are filled with proviſions, which if too long kept become putrid, and the hoſpitals crouded with wounded diſeaſed patients and valetudinarians. It is much to be regretted, that the unfortunate ſituation of all theſe receptacles is a real and grievous nuiſance to the inhabitants. What may we not apprehend from theſe great ſources of evil, ſhould epidemical or peſtilential diſeaſes take place!

The wet ſeaſon here is nearly the ſame as at Bengal, though the rains are not ſo continual, and the ſoil more favourable for receiving them. Yet we do not experience ſo much temperature of the atmoſphere on this account, becauſe the ſudden

ſudden interpoſition of the ſun (which, during the greateſt part of their falling, is vertical) occaſions the heated earth to retort a moſt oppreſſive and ſultry moiſt vapour, which ſeldom riſes above the level of the air we reſpire.

The iſland of Bombay itſelf is moſtly flat and low. Adjacent to the bounds of the eſplanade is a very large wood of cocoa-nut † trees, which are not only advantageous, but make the rides more

† Cocoa-nut trees run up an amazing height, before the foliated branches ſpread out. The foliage is very little, and does not attain much moiſture, conſequently the groves are not unhealthy; and, if we may draw our determinations from the healthineſs of the crowds of natives who inhabit theſe topes, ‖ we ſhall readily aſſent in opinion, that the effects are not prejudicial. The cocoa-nut tree is in high eſtimation with the Indians, who apply it to almoſt every purpoſe of life, viz. fuel, timber, blacking for paint, oil, ſpirits, vinegar, wine, water, fruit, vegetables, bark for canoes and dying, cordage, cables, twine and thread, charcoal for gunpowder, food for cattle, materials for thatching, ſalt, ſugar, ſails, milk, tools of various ſorts, hats, mats, beds, and other furniture.

‖ Tope. An Hindoſtan term for a grove or wood.

pleaſant

pleaſant and agreeable. The continent that circumſcribes this iſland is very mountainous and hilly, ſo that the air will not only be more ventilated, but more pure and frigid. To this cauſe we are in a great meaſure indebted for the ſalubrity of this ſettlement. The reſidents are not addicted to errors of diet; their general mode of living is very frugal and œconomic. We do not preſume to inveſtigate the cauſe, why Europeans, who reſide nearly in the ſame ſituation are not equally luxurious; ſuffice it to obſerve, that every individual will experience the ſalutary effects of this judicious method. By a chymical analization of the water in general uſe here, we find it leſs impregnated with earthy particles than at the former ſettlements, conſequently it is lighter and more pure, therefore better ſuited to the human ſtomach and natural ſecretions.

It is an unpleaſing taſk to be under the neceſſity of repeating our former obſervations on the neglect of the police, and the filthineſs of the natives, who take the ſame

ſame unwarrantable liberties here as at the former preſidencies. As long as the eſplanade continues to be the mall of Bombay, it will be a bar to the pleaſure this ſituation would otherwiſe afford. It may be queſtioned whether, if the natives are not to be reſtrained by lenient meaſures, (thoſe that are vigorous being in ſome inſtances detrimental) it would not be good policy to have ſtated privies deeply ſunk in the earth, and compel all thoſe who ſtand in need of theſe conveniencies, to make uſe of them under forfeiture of ſevere and heavy penalties, which we humbly conceive will ever produce more ready obedience from theſe people, than all the terrors of flagellation, chains, and dock-labour?

Fetter'd ſlavery, with ſcanty allowance of bad proviſions, will ever incur a juſt reproach, and inſure a ſtigma on thoſe acts of legiſlative power; as puniſhments, though neceſſary, yet doubtleſs ought ever to be blended with mercy.

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The diſeaſes common to this place are all of the bilious kind, though not ſo inveterate as at Bengal, conſequently the cure will be more eaſily effected; and, if we compare the number of valetudinarians with the healthy in this preſidency, we do not think our opinion too haſtily drawn when we determine it a healthy ſettlement.

CHAP.

CHAP. V.

Of the Air, Soil, and Situation of Bencoolen.

BENCOOLEN, on the ſouth-weſt coaſt of the iſland of Sumatra, in four degrees of ſouth latitude, and one hundred and two degrees eaſt of London is a very irregularly built place, the principal object in raiſing houſes being confined to air and dryneſs: therefore uniformity cannot be expected. Were the habitations erected after the European faſhion, it would entirely ſubvert the ſalutary effects ariſing from a free current of air circulating round the houſes. The country adjoining to fort Marlbro' is a long range of low flat ground, abounding with coppices and woods, and by the quantity of rain which is daily falling, the earth is in general exceedingly ſwampey and wet, which with long intervals of calms and light winds, and the interpoſition of the ſun, renders the atmoſphere exceedingly moiſt and ſultry. All places ſituated on or near the equator, are ſubjected to a much

much greater variety and ſudden changes of weather, than thoſe parts of the earth which are placed more remote from that region of heat. In this inſtance we cannot too much admire the juſt and accurate ordinances of Providence, which by theſe means has rendered ſuch ſituations comfortable and deſirable. Comfortable, comparatively ſpeaking; for did not theſe tranſitions take place, it is a problem of eaſy ſolution, that theſe and ſuch like iſlands would be deſolated, and receptacles only for beaſts and birds of prey:---deſirable, for the abundant advantages reaped by private commercial gentlemen, and more ſo, as it tends to promote the culture of an art† ſo beneficial to the honourable Company, and which, if duly reſpected, will be of cer-

† Diſtillation of Arrack. Bencoolen is the firſt Engliſh ſettlement in the Eaſt-Indies that has made any attempts towards manufacturing this commodity. The obſtacles which clogged this buſineſs in its infancy are now done away, and the proceſs goes on with great ſpirit. The arrack made here is equal, if not ſuperior, to that of Batavia; and this ſettlement will, in a very ſhort time, be able to ſupply India and Europe with this excellent liquor.

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tain and very great advantage.——In the progreſſive point of view, we not only obſerve the civilization which is daily taking place, but the large ſtrides which are inceſſantly taken by all ranks and orders of men to facilitate and cement the link of that one great chain, human intereſt and felicity.

This ſettlement, during the northerly and weſterly winds is generally healthy; but when the eaſterly and ſouth-eaſt are prevalent, (which blow over a vaſt tract of woody and ſwampey ground) it is a certain preſage to deſtructive and fatal diſeaſes. The reſidents here are well aware of the juſtneſs of this poſition, by the baneful effects ſo often occurring among them, and the reſulting deſtructive conſequences of interrupted broken ſocieties. From the cauſes already aſſigned, we ſhall readily conceive the ſtate of the atmoſphere, which at theſe periods is low and denſe; and were it not for the great quantity of thunder, (a conſtant companion of theſe climates) the air would be totally obnoxious to the human

ſpecies. Bilious diſeaſes, with obſtinate viſceral obſtructions, are the effects of this climate, though we are compelled to acknowledge that the liberal mode of living ſo univerſally adopted here, is the ſecondary cauſe: and however much the exerciſe of riding (which every one partakes of) may tend to reduce the complaints, yet it is a certainty that temperance will often prevent thoſe which medicines cannot remove. The ſoil is admirably well adapted to the climate, being of a looſe ſandy texture; it receives and imbibes a much greater quantity of water than it otherwiſe would do, by which means the powers of vegetation are remarkably invigorated, and capable of producing every thing in great abundance, either as neceſſaries or luxuries of life. Indeed, ſterility in this place is a great ſtranger; and we have not the leaſt doubt, that when the police do effectually drain the ſwamps and clear the woods, this reſidency will vie with the reſt in ſalubrity and advantages to the honourable Company.

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The water in general uſe is light, pure, and taſteleſs, the beſt criteria of its goodneſs: neither have we obſerved any inconveniences ariſing to thoſe, who from neceſſity or choice are obliged to drink water without the admixture of wine or ſpirits. This is a circumſtance that very rarely occurs in India, but can be verified by a great variety of examples. From the obſervations already made, we ſhall (by taking a retroſpective view of the whole, and by bringing them into one focus) relate the ſymptoms of the particular diſeaſes alluded to, with the method of cure.

OBSERVATIONS

ON

HEPATIC DISEASES.

PART II.

CHAP. I.

General View of the bilious Fever, hepatic Flux, and Hepatitis.

IN the firſt part of this work it has been ſhewn, by a ſhort and ſuccinct account of the climate, &c. of each ſettlement, that the diſeaſes peculiar to them are ſimilar in their fundamental origin; and, by a juſt compariſon of the air, ſoil, and ſituation of the different preſidencies, we do not find ſuch an eſſential difference ariſe as is common to places deſcribing ſimilar parallels which are ſitu-

ated without the tropics; but this cannot be a matter of ſurprize, as we are all converſant with the prevailing winds* in theſe circles, which will fully clear up any difficulty of reaſoning that may occur on this ſubject—conſequently then (as appears by recitals) there is ſo great a ſimilitude in the natural cauſes of climate and ſeaſon, alſo in the diſpoſing cauſes, exerciſe and diet, concurring with habits and conſtitutions particularly ſubjected to bilious complaints, which by repeated attacks are rendered more ſuſceptible and irritable, the effects of medicine more wavering and precarious, the diagnoſtics varying, and the patient tired with ſtruggling againſt diſeaſe. By this we ſhall readily perceive the great trouble that ariſes in executing the curative part of diſtempers. Men of ſtrong rigid fibres, and valetudinarians are exceedingly liable in the hot dry months to ſevere bilious fevers; the former are always expoſed to the dangers of putridity, and ſuffer very much from the effects of the diſeaſe, which too frequently terminates in viſceral obſtructions.

Thoſe

* Monſoons.

Thoſe who are accuſtomed to indiſpoſition, very rarely, on the firſt approach of their complaints, have any evident putrefactive ſymptoms; though ſometimes the inflammation runs more high than we naturally expect from conſtitutions familiarized with diſeaſe, reſolved and relaxed by being ſo long accuſtomed to heats and moiſture. Now we obſerve, that if this inflammation in ſuch reduced habits is not duly repulſed, in the laſt ſtage of the diſeaſe, the putrefaction will firſt attack the bowels and then become general; the patient, unable any longer to exiſt under ſuch circumſtances, will die. It may appear extraordinary, that men of ſtrength and great vigour of conſtitution, unimpaired by ſickneſs, ſhould be ſo liable to the fatal effects of this diſeaſe. Certain it is, from whatever cauſe it may proceed, that the rapidity and ſtrength of the diſtemper is always moſt violent in robuſt habits.

Females, children, and all thoſe who are of a lax and delicate texture, are ſeldom haraſſed with the effects of bilious

fevers, neither are the ſymptoms in theſe ſort of patients ſo inveterate or alarming. There is one circumſtance claims our particular attention on this head, which is always more or leſs attendant on bilious attacks in the female ſubject. If the fever has made its approach on or near the time of the menſtrual evacuations (which is the caſe four times out of five) and either ſuppreſſes or prolongs that diſcharge, the event is generally fatal, unleſs relieved by copious bleeding and feminine medicines. It is not adviſeable to reſtrain the complaint too haſtily, but if it becomes violent, which often happens to married women, then it claims our particular attention for relief; otherwiſe the patient will inevitably ſink with debility, as in the other inſtance with a plethora. We have known two remarkable caſes occur from the changes wrought in the human frame by this diſeaſe, viz. the one an elderly lady, who had, by the courſe of nature, not been ſubjected to the menſes for many months: the other, a maiden lady, who had by a former illneſs been deprived of this evacuation,

cuation, and felt little or no inconveniency from the ſuppreſſion, though during this interval of two years, ſhe uſed herſelf to the lancet, three or four times in twelve months, more, we are induced to conjecture, from caprice than neceſſity, as ſhe was remarkably healthy. In both theſe caſes the diſcharge at firſt became very alarming, but after the fever took place and ran for two or three days very high, then the menſes gradually ebbed away, the ſymptoms of the fever became moderate, and it terminated in a remittent, which was cured by ſmall portions of the bark, with the addition of a little ſaffron. The former patient had not any more appearances of the like nature, and the latter continued to be very regular, though in ſmall quantities.

From theſe remarks we are inclined to conjecture, that bleeding in the firſt part of the diſeaſe is abſolutely requiſite. If our practice was confined to females under ſuch predicaments, we are confident it is always neceſſary; but with men, whoſe frame is more ſtrong and active, and who,

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by very eſſential differences in regimen, are more open to the ſeptic tendency of this diſeaſe (unleſs under very particular ſymptoms) it is highly injudicious to make uſe of the lancet; for although the ſtrong tenſe pulſe with laborious breathing may indicate the neceſſity of this evacuation, and the patient feels himſelf more light and eaſy, his pulſe more ſoft and open, yet, in a few hours, the ſymptoms will be more or equally violent, and the patient low, feeble, and exceedingly dejected, with rigors and an inſupportable load in the præcordia, ſpaſms in the muſcular ſyſtem, and total ſuppreſſion of perſpiration. The urine, which before bleeding, would be reddiſh and turbid, is now rendered in ſmaller quantities, crude and pale. Indeed the firſt object is to cleanſe the abdominal viſcera by laxative cooling clyſters, and afterwards the ſtomach by a briſk emetic, which will generally operate both ways. Without this precaution we have frequently ſevere pains in the head and breaſt enſue, with great heat and tenſion of the abdomen; but where the emetic precedes the

other

other operation, the determination is always more ſpeedy and ſalutary. A frequent repetition of theſe methods is uſeful to clear the alimentary canals of putrid, indurated colluvies, which are always generating during the progreſs of this diſeaſe. Copious perſpiration ought by every means to be promoted, and alſo the urinary diſcharge; but hot air, tepid draughts of diluting liquors, are highly deſtructive: on the contrary, the air of the room is to be reduced to a lower ſtate of the thermometer than is uſual at this ſeaſon, and the patient expoſed to it as much as he can poſſibly bear, until he complains of being chilled. Small and frequent draughts of ſubacid diluting drinks made very cold by the application of nitrous water, are not only very grateful to the ſick, but productive of very ſalutary advantages. In the decline of the diſeaſe the patient is to be ſupported with light nutritive diet, and a little generous madeira, acidulated with the juice of freſh limes, or red port with water. Old hock, when not adulterated (as is ſo commonly practiſed) with ſugar of lead, is

a pleaſant and cooling drink: but as we have ſo many liquors equal, if not ſuperior to it, ſurely it can never be adviſeable to run the leaſt riſque of adding fatal dry cholics and paralytic attacks to the catalogue of diſeaſes.

The particular indications which require bleeding are to be minutely attended to, and no time is to be loſt in taking away a few ounces of blood, and repeating it as the neceſſity of the ſymptoms urges, always obſerving not to be too liberal at one time, with the evacuation, for fear of ſinking your patient too low. A ſtaring wildneſs of the eyes, with inflammation, an aptneſs to action, and inattention to the people about him, with low ſmall pulſe, and a heavy pain in the hepatic region, are the prognoſtics that require the lancet; and if by the firſt five or ſix ounces of blood drawn we do not find the pulſe riſe and more full, with a little decreaſe of the other ſymptoms, it will be adviſeable to repeat it. Should the patient after the firſt bleeding become dormitive and ſtupid, by no means repeat the

the operation, but have ſpeedy recourſe to the former methods, applying a large bliſter on the hepatic region, and continuing it until the comatoſe diſpoſition wears off. In the decline of theſe complaints, if nauſea takes place, with dizzineſs, a liſtleſſneſs, and drowſineſs, it generally terminates in the hepatitis: on the contrary, if griping, with alternate heats, chills, tenſion and pain in the ſartorius and gaſtrocnemius muſcles ſucceed, it is a certain preſage of the bilious flux, which, as the hot ſeaſon wears away, and the atmoſphere begins to be moiſt and damp, with frequent ſhowers, is ſeldom cured until the colder months have prevailed for ſome time.

Should the dry period be ſeaſonable and healthy, and very few ſuffer by the intenſe heat, &c. yet, at the breaking up of the rains putrid bilious fevers and fluxes will be prevalent; and it is at this period alſo that the liver is ſo much affected, and breaks out in ſuppuration, or hepatic conſumption—the moſt pitiable of all diſeaſes that are inflicted on the human ſpecies.

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The flux which prevails at theſe times is dangerous and alarming, the evacuations being much too large for nature to ſupport, without the effectual adminiſtration of medicine. The preluding ſymptoms of this ſpecies of bilious complaints are variable in different ſubjects; and by being thoroughly acquainted with its different modes of attack, we ſhall not only have a much clearer view of the enemy, but be able to repulſe him without any conſiderable loſs of ſtrength, &c. This diſeaſe, like the bilious fever, is moſt fatal to the robuſt and healthy; if they are ſo fortunate as to recover, it will require much time and care to re-eſtabliſh their conſtitutions; indeed, ſo pernicious are the conſequences, that many continue to have a weakneſs on them, and on the leaſt irregularity are ſubject to ſlight attacks of the ſame diſeaſe, which, according to the length of time that the latent principles have been accumulating, or the quantity of exceſs committed, are ſhort or long, mild or ſevere: but in thoſe of weak and lax fibres, and of an irritable habit, the diſtemper is more lenient

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and leſs alarming, the ſymptoms not ſo complex and variable, and the firſt aſſault leſs oppreſſive and burthenſome. Theſe patients have but a ſmall degree of feveriſh heat attending on the complaint, the nauſea not very irkſome, the ſpaſms remit and are not intolerable, the tongue not much cruſted with whitiſh or yellowiſh buff, the breath not very fætid, yet the gripings in the firſt paſſages are continual and ſevere, the ſtools putrid and watry; it is ſeldom after the firſt or ſecond motion that any knotted fæces are voided; and, in the ſecond ſtage, the ſtools are not excrementitious, but mere waſhings of the inteſtinal canals, mixed with greeniſh or yellowiſh bile. The prelude to death in the laſt ſtage of this complaint, is when the motions are black and very putrid, ſometimes mixed with filaments from the internal coats of the bowels, the urining is excruciatingly painful, and of a very green and yellow hue, voided in ſmall quantities, and not turbid. To this melancholy detail may be added the deleterious ſtate of the patient's mind, with ſingultus, and a low trembling

ling intermitting pulſe, returning with feeble efforts to regain its velocity, then again with more enfeebled remiſſions, ſtarting and ſtruggling with the remaining ſparks of vital flame, the patient ſuddenly feels himſelf relieved, becomes drowſy, and ſinks under theſe various calamities into eternal ſlumber. Men of an athletic frame and rigid fibres have all this train of maladies to combat with, in a much greater degree; for (although it cannot be mathematically deduced, that the ſtrength of the diſeaſe is par with the vigour of the afflicted) this is an obſervation of ſo long a date, and ſo univerſally acknowledged, that it would be preſumption to controvert theſe ſentiments, particularly when daily practice verifies the validity of this declaration.

The delirium or ſtupor, which is conſtant in the laſt termination of this diſeaſe in the delicate habit, is always a more early viſitor in the robuſt, and requires plentiful bliſtering to remove it. The lancet we have withheld on theſe occaſions, judging that it is the great ſtimulus

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in the ſtomach and bowels which is the immediate cauſe of this ſymptom. Now, if after plentiful evacuants, there ſtill remain theſe ſymptoms, then it is adviſeable to take away eight or nine ounces of blood, leſt ſome hemorrhage ſhould follow, and reduce the patient to the loweſt ebb before we are aware of the conſequences. Frequent lenient purgatives, aſſiſted with calomel, ſoap, and rhubarb, are always ſerviceable, and promote the expulſion of putrid bile and fæces; but draſtic purges, unleſs in very ſluggiſh habits, are prejudicial and baneful, and ought always to be uſed with the greateſt circumſpection. Dry air and cloathing, with particular attention to cleanlineſs, are great reſtoratives in this diſeaſe, therefore all conveniences ſhould have a portion of water in them to prevent the effluvia diffuſing throughout the room, and ſhould be well cleanſed immediately, not being permitted to be left for further occaſion. Without theſe very neceſſary precautions, the patient and every one elſe will be exceedingly incommoded, and made very liable to partake of the diſeaſe.

The room ſhould be kept cool and airy, frequently ſprinkled with a little vinegar, or, what is better, a few branches of freſh limes may be hung up and removed every two or three days, as the exigencies of the caſe may require. As there is ever a great emptineſs in the ſtomach and bowels, ſmall draughts of congee or panada, with red wine and lime-juice to make it agreeable, may be frequently and ſafely uſed: during the indiſpoſition not any animal food can be allowed; turnip water, or, what is to be preferred, marmalade made by adding a ſufficient quantity of rice flour to the ſoft pulp of boiled turnips, formed to a good conſiſtency with the juice of this vegetable, is a moſt pleaſing and nutritive diet, and never (excepting in caſes of long inanition, or great ſtomachic feebleneſs) produces the leaſt uneaſineſs or flatulency. In this inſtance the correctors are a little flour of muſtard mixed with the whole, or a few cloves, which ever may be moſt agreeable. In the convaleſcent ſtate, piſh-paſh and chicken gruel, with ſmall draughts of feeble claret and water are to be had re-

courſe

courſe to, obſerving to err rather on the abſtemious ſide, than otherwiſe.

As the external air at theſe times always affects the patient's abdomen, and makes him chilly, with thrilling pains in the umbilical region, we direct a piece of flannel to be worn during the illneſs. This application, however trivial it may appear, is productive of the greateſt benefits, by warming and invigorating the abdomen, which facilitates the periſtaltic motion of the bowels, and brings on a gentle generous perſpiration. As the complaints wear away, the flannel may be left off, and changed to callicoe, and that alſo gradually omitted.

After all the turbulent ſymptoms are removed, and the patient gathers fleſh and ſtrength, it will be neceſſary to make uſe of a ſea bath, which will revive the ſpirits, brace and conſtringe the muſcular ſyſtem, and add firmneſs and elaſticity to the different organs. The only care requiſite is to avoid taking cold; and, if a coſtive habit ſucceeds, a little rhubarb and ipe-

cacuanha may be adminiſtered once or twice a-week.

We have had frequent opportunities of remarking the courſe of this bilious flux on board the honourable Company's ſhips, and alſo in thoſe gentlemen in India, whoſe nautical employment keeps them much at ſea. To thoſe few who frequent the Malay coaſt, and reſide long in their poſts, theſe complaints are particularly prejudicial, and they always require a greater length of time to recruit their conſtitutions, and a frequent recourſe to ſaponaceous and rhubarbaric laxatives, to check the progreſs of accumulating diſeaſe, and prevent thoſe relapſes which, without the greateſt care and attention, will inevitably follow, and however light and well the patient may feel himſelf after theſe returns, yet they bring on ſuch univerſal debility and relaxation, that the conſequences are ever to be dreaded. Therefore it is adviſeable, whenever a yellowiſh hue of the eyes, or ſlight twitches in the muſcles of the legs, attended with vagrant pains in the bowels,

els, languor, &c. take place, to apply freely lenient and oleaginous laxatives, until the ſymptoms are done away, and then endeavour to ſtrengthen the ſtomach, &c. by cordial aromatics, and, if no feveriſh heat hangs about the habit, the bark with claret will be beneficial, ſometimes adding a ſmall quantity of freſh lime juice to make the draught more pleaſant and ſit eaſier on the ſtomach. It is worthy our very ſerious remarking, that the diſeaſes infecting the Malay ports, viz. Rhio, Tringana, Selangoa, Quielah, do invariably in their effects deſtroy the ſtamina of the conſtitution; and there are but very few inſtances occurring to us, that can be held forth to controvert this opinion. The remnants of the diſeaſe infeſt the habit ſo long, that the cure will ever be very precarious, the ſymptoms aſſume a different face, and the ſeat of the complaint is not two days together invariably the ſame. This muſt be productive of perplexity to the phyſician, and great anxiety to the patient. The moſt ſucceſsful mode that has hitherto been practiſed, is to remove the ſick frequently

from place to place, always preferring a hilly ſituation as the moſt deſirable. This change is to be promoted as ſoon as the patient can, without any riſque, bear the fatigue of his journey. Nutritive, vegetable, and farinaceous diet, with a ſmall portion of medicine, generally compleats the cure. This method of practice is very ſeldom ſo effectual to thoſe gentlemen who are conſtant reſidents on the continent: on the contrary, we find that ſhort ſea voyages, and abſtemious living on board of ſhip, does always anſwer our moſt ſanguine expectations.

We have now given a general deſcription of the bilious fever and flux; it remains that we deſcribe the third ſpecies of bilious diſeaſes, which ſometimes originates from the former complaints being ill-cured; or by rapid progreſſes of ſlight indiſpoſition, it at once fixes itſelf in the liver, haraſſes and tortures the lingering patient with the utmoſt extremity of pain. This complaint appears to be little known in practice in the northern parts of Europe; and before we proceed to the general

general view, we beg leave to insert the substance of Dr. Cullen's lecture on this subject, which, perhaps, may not be in every gentleman's possession. The elaborate lecture not only shews the extensiveness of his discernment, but reflects the highest encomiums on his learned abilities.

"I have found it (says the Doctor) extremely difficult to form a character of this disease, such as would apply in all the variety of cases that may occur. Whenever the characters that I have laid down are all present, there will be no doubt relative to the disease; but it is only by taking them in combination; for, when taken separately, there is hardly any one strictly decisive and determinate. The first part of the character, after the pyrexia, I have termed *hypochondrii dextri tensio & dolor*. These are the most certain symptoms of hepatitis; but there is a fallacy here in two respects: the first is, that the liver extends so far into the hypochondrium, even into the left side, and if this portion happens to be affected, we may be mistaken, if we judge merely from the

the ſeat, it being in the right ſide, we exclude the liver, and even the pain alone ſeated in the right hypochondrium will not be deciſive:—it may either be an affection of the ſtomach, or of the colon, there contiguous to the liver. And we will not give a much more certain determination from conſidering the ſtate of the pain, *ſæpe pungens obtuſus*. When the membrane of the peritoneum extended over the contiguous ſurface of the liver, is the part affected, it exactly reſembles, in its appearances, the pleuriſy, for it is ever attended with a difficulty of breathing and cough.

" I knew a perſon who had, for ſeveral times, been treated for a pleuriſy, and dying of another diſeaſe, upon opening the body no adhæſion in the pleura was found, but a portion of the liver was ſtrongly attached to the peritoneum, and with the marks of former inflammation. You will ſee in writers, as in Sauvage, a *pleuritis hepatica et hepatitis pleuritica*. The diſtinction is of no great conſequence, the practice being much the ſame; but it may

may prove an inconvenient miſtake with reſpect to the iſſue, which in the hepatic caſe is often by ſuppuration, and where this happens it may lead to a very different practice, if we do not diſtinguiſh the ſeat by the pain *ſæpe pungens ſæpe obtuſus*.

"As to the *dolor ad claviculum & ſummumhumeri dextri*, which has been conſidered as a pathognomic in the caſe of hepatitis, ſome have explained it by a connection of nerves that give occaſion to this. If it were neceſſary, I could ſhew, that this is not applicable, and there is a much more ſimple explanation where the liver is inflamed in its convex part, and makes an accretion with the contiguous diaphragm, the weight of the liver pulling it down gives a pain that is only felt at the fixed extremities, at the clavicle or point of the ſhoulder, as Sauvage has explained. But 'tis not the pathognomic required: 'tis confined to the caſe of accretion of the diaphragm, and 'tis ambiguous in this reſpect, that it in ſome caſes attends an inflamed mediaſtinum.

Another

Another mark of the hepatitis is the *decubitus in ſiniſtrum latus difficilis*: this, however is not univerſal; it only happens in conſequence of the accretion of the liver to the peritoneum of the right ſide, and when the bulk and weight are conſiderable, then the lying upon the other ſide gives pain and tears the parts; but where the weight is not conſiderably encreaſed, the *cubitus in ſiniſtrum* may be ſufficiently eaſy. The following ſymptoms, the *dyſpnœa tuſſis ſicca*, *vomitus*, *ſingultus*, are all characters that apply to the diſeaſe; but none of them apply ſeparately: I have placed them here as modifying the different caſes, and wherever our characters are otherwiſe leſs compleat, I think it of conſequence to point it out. From the circumſtances taken ſingly we cannot judge, but from them all taken together we may be ſomewhat ſecure: perhaps there will be in ſome caſes doubts remaining that we have not been able to determine.

" Having thus ſpoken of the means of determining the exiſtence of this diſeaſe,

I must desire you to compare the characters I have given with those of Sauvage and Linnæus, and you may see what is especially to be attended to. Besides this character Vogel makes an addition: he sets down *icterus, interdum vomitus bilis & per alvum dejectio.* It has been very common in most practical writers, and it may be bold indeed to reject it as a symptom, (the *color faceii flavescens*). I say briefly, that it has proceeded upon this, that the hepatitis is very frequently symptomatic of a remittent fever; and we know that these, in warm climates, seldom take place without affecting the liver more or less. But it is not owing to that, but to another effect of the disease; if they induce a yellow colour of skin, it is not a symptom of hepatitis, but with this combination of remittent fever; and so it did not properly enter into the characters of the disease, it being the idiopathic that we are here characterizing; or, I believe, if it has been more universally alledged, it has been entirely from theory. So Boerhaave has given the *icterus* as a symptom; but Van Swieten himself has given up

up the point, and has added the reaſon why no icterus can appear from the irritation of thoſe matters that are not changed into bile, and that it is only in conſequence of re-abſorption that icterus appears; and therefore it is not merely from obſtructions of the extremities of the hepatic arteries that an icterus can ariſe, but from an obſtruction of the vena portarum it cannot: and there are innumerable inſtances of the idiopathic hepatitis without any ſuch ſymptom; and the only caſe that gives ambiguity is in the remittent fever, and there is not properly jaundice. However, we muſt add with Van Swieten, that there is a caſe of hepatitis, where if the inflammation of the liver is in its convex part, in that portion contiguous to the gall-bladder, there the inflammation may be communicated to the biliary ducts, or by its ſize may compreſs theſe ducts, and have the effects of a calculus, and produce the jaundice; but that is not properly to be conſidered as a ſymptom of the hepatitis. The other ſymptom that Van Swieten adds, is the vom. bilis: I will not deny that the irritation

irritation of the liver by inflammation may promote the ſecretion of bile; but I find it very little taken notice of by practical writers, and it is by no means a neceſſary conſequence, and both the *vom. et deject. bilis per alvum* are very rare, and of no uſe in the character.

" Next to its theory, let me add a few words with a view to its diſtinction. Dr. Boerhaave gives a piece of theory, that the obſtruction producing inflammation may occur in the extremities of the vena porta or arteria hepatica; it is true the obſtruction may occur in either, but the inflammation can only ſubſiſt in the extremities of the hepatic arteries. There are not the ſame doubts here as in the lungs, becauſe the pulmonary artery has all the conditions and circumſtances of an artery: but the vena porta has that ſingle condition of the blood flowing from the larger trunks into ſmaller branches. But the coats of the vena porta have not been ſuſpected to be muſcular, ſo that there never is that encreaſed impetus that conſtitutes inflammation.

motion. Obſtructions that begin in the extremities of the ven. port. may be communicated to the hepatic artery, and may there produce inflammation; but the ſeat of inflammation muſt be in that only.

" The hepatitis is diſtinguiſhed into the phlegmonic and eryſipelatous, and to the firſt ſpecies of Sauvage, the eryſipelatiſſa; but it is a diſtinction that is not founded on fact, nor admiſſible in theory. I gave my reaſons for this before. If we are right in our notions of eryſipelas, that it is owing to an acrid matter depoſited under the cuticle, there is nothing analogous to that in the ligaments of the liver, or in the ſecretion between that and the coats of the peritoneum; and there are no facts or obſervations that lead to aſcertain this diſtinction. Another diſtinction has been into parenchymatous and membranous inflammations of the liver, but I ſay the laſt is the principal. There is certainly room here as well as in the lungs for ſuppoſing the two different caſes; but, beſides the difficulty I moved before, it is

here

here we have a proof of the argument I employed; I ſaid, that where the parenchymatous inflammation neither ſeemed to have occurred, and upon diſſection the abſceſs or collection of pus appeared in the ſubſtance of the liver; yet in ninety-nine caſes of one hundred there were no previous marks of the inflammation. It has been a chronic caſe in conſequence of ſome congeſtion, ſome effuſion, which came to the neighbouring parts, attended with a purulency, and does not diſcover itſelf by the peculiar circumſtances of inflammation; and therefore I would ſay that the parenchymatous inflammation of the liver is not in any caſe the object of our practice as a primary inflammation. I have only to repeat that the hepatitis, as in other caſes of the viſceral phlegmaſiæ, may be either idiopathic or ſymptomatic; and, perhaps, the ſymptomatic in all caſes is the moſt frequent, as a conſequence of remittent fever. I have before explained why theſe intermittent and remittent fevers have ſuch a remarkable tendency to produce accumulations and congeſtions in the abdominal viſcera,

and

and more eſpecially in the liver and ſpleen, but do not enter into the conſideration here; and indeed in this preſent caſe it is very rarely that thoſe of the liver are to be treated as inflammatory diſeaſes.

"To conclude:—when, independent of remittent fever, the hepatitis appears as an idiopathic, the cure is the ſame as that of the other abdominal diſeaſes, by bleeding, purging, bathing, bliſtering, &c. With reſpect to the ſymptomatic caſe, I have only to add, that, when remittent fever, is as a fever cured, or when its violence is at leaſt conſiderably abated, nothing is more common than for a congeſtion, (and indeed many ſymptoms of an inflammatory ſtate) to remain affecting the liver. We have lately learnt from the gentlemen practitioners in the Eaſt-Indies of what we would not otherwiſe have thought of, that the uſe of mercury in conſiderable quantities is the only effectual means of diſcuſſing the congeſtions that remain in the liver."

We

We now ſhall proceed to our general view of the hepatitis, without any comments on the former quotation, adhering ſtrictly to the ſymptoms of this diſeaſe, and its various progreſſes, whether ariſing (as before taken notice of) from the effects of other diſorders, or originating in latent and dormant ſymptoms, which have not much incommoded the patient, until the diſtemper being fully matured, breaks out in a moſt complicated and fatal manner. Peculiar to the diſeaſe is the method of cure; and whether it is created (which is often the caſe) by venereal taints, or the effects of a long courſe of mercury (reſolving and deſtroying the ſtamina of the conſtitution) or from a combination of viſceral complaints that have a natural tendency to form obſtructions in this viſcus, or by whatever cauſe created, the method of practice is very nearly the ſame: ſo that the young practitioner will not be obliged to ſeek for a remedy applicable to every ſymptom of the diſeaſe, which by their number and different poſitions, may induce him to form conjectures reſpecting the certainty

of it, and lead him on to adminiſter remedies that perhaps may palliate, but will never remove the complaint, which in the end does not only tend to aggravate the circumſtances, by fixing more firmly thoſe ſymptoms of the hepatitis, but reduces the afflicted patient to ſo low a ſtate that the requiſite remedies without the greateſt precaution cannot be applied. To relieve him from theſe inconveniencies, it does clearly appear that we ſhould not loſe any time in our application of effectual means, either previous to, or immediately after the general evacuations, as the exigencies of the caſe may require, always calling to our recollection that the more ſpeedy the remedy, the more certain is the ſucceſs. Indeed, with ſuch habits of body as have fallen to our portion of practice, in the Eaſt-Indies (aſſiſted to diſſolution with the continual powers of a climate not adapted to European conſtitutions) we muſt be precipitate and determinate in our proceedings, otherwiſe the patient will fall. However extraordinary this mode of practice may appear, yet the ſucceſs of the operation does fully evince

evince the judiciouſneſs of the proceeding: for without incurring the cenſure of vanity, we flatter ourſelves we may indulge the epithet, when nineteen patients out of twenty recover. The effects of ſevere indiſpoſitions to which Europeans in the Eaſt-Indies are peculiarly liable, are too often productive of viſceral obſtructions, particularly in the liver; and as the patient in this caſe is conſequently conſiderably reduced, we are to be cautious in the application of medicines, drawing a parallel between this ſituation and the other that was before related. A man in the full meridian of health, who has (without being able to aſſign any cauſe) a ſudden attack of the diſeaſe, will require larger and more frequent evacuations, with a more liberal uſe of mercury, than the feeble and enervated, who are brought to a very low ebb of ſtrength by other complaints, with this difference, that the latter do not require much bleeding, bliſtering, or purging, but an immediate mercurial courſe. On the other hand, the former will ſtand in need of all thoſe remedies prior to the

uſe of that mineral, unleſs the pain in the hepatic region is very ſevere, with a ſmall quick and tenſe pulſe, ſlight hectical cough, with partial inflammation of one or both eyes, but generally confined to the right: in this caſe, ſaponaceous mercurial medicines are to be freely uſed, the lancet and other remedies reſtrained, until the ſymptoms abate. The reduced habit ſeldom has the complaints before recited, but a tenſe and rather full pulſe, with vagrant pains in the right ſide of the thorax, extended to the clavicle, with quick reſpiration on the leaſt exertion of the body, alſo dry parched hot ſkin, and various other complaints which will be related in the chapter treating of the diagnoſtics of this diſeaſe. Here the mercury may be ſafely and freely given in ſmall quantities, rather as an alterative than otherwiſe, becauſe in this caſe the event is more favourable, than procuring large drainings from the ſalivary glands; opium and camphor may be joined to abate the pain, which by leſſening the ſtimulus, will oftentimes cauſe a perſpiration to break out, and afford the patient amazing

re'ief.

relief. The extremes of heat and cold are to be carefully avoided, and, if poſſible, the atmoſphere of the room is to be kept to an equal ſtandard: gentle exerciſes of reading, walking, &c. are amuſing and beneficial. On no account ſuffer any errors of diet to be indulged, for the leaſt exceſs in this point will create troubles and difficulties. Cooling light food, with frequent draughts of ſoftening emollient liquors will allay thirſt, blunt the acrimony of the contained fluids, and ſheathe the viſcera from the continual irritation. By guarding againſt theſe particular circumſtances, we not only facilitate the cure, but aſſiſt nature in her endeavours to alleviate the ſeverity of the ſymptoms. Females are not ſo ſubject to the hepatitis, and are ever eaſier relieved. Whether this ariſes from the delicacy of their formation, or from the encreaſed menſtrual evacuation, we have not yet been able to determine; but, from the remarks we have made in theſe caſes, it very plainly appears, that the greater the flood of the catamenia, the more eaſe the patient experiences; and, on a

diminution of this favourable diſcharge (although the lancet has been freely uſed) we never have perceived ſimilar benefits ariſe. Now, if we have a patient in this particular ſituation, and can effect nature's general intention, we may not be the leaſt apprehenſive of the conſequences, but go on with the courſe of medicine until the next flooding, which if natural, will do much, and make the cure very certain. In children, under puberty, this diſeaſe does ſeldom appear, and then not violent: the mode of cure is the ſame, excepting that it is not neceſſary to bleed; and if the appearances ſhould induce the practitioner to apprehend a great ſtate of inflammation, and in conſequence he draws four, five, or ſix ounces of blood, it is very rarely that any good effect is produced, and we never have ſeen one inſtance of this kind where there was the leaſt neceſſity for a ſecond bleeding.

The hepatitis is not confined to any particular ſeaſon or period; it is a diſeaſe that is peculiar to the Eaſt-Indies, for we have not learnt that any thing ſimilar has

has yet made its appearance in the Weſt-Indies, or in the ſouthern Britiſh ſettlements in America. The Dutch gentlemen of the faculty, at the Cape of Good Hope, with thoſe on the continent of Africa, have been ſilent on this ſubject; and although our ſettlements on the coaſt of Guinea, are much infeſted with ſevere and fatal bilious diſeaſes, yet we have received no information concerning the exiſtence of the hepatitis; and although this complaint is not confined to any limited time or ſeaſon, it has never aſſumed an epidemical appearance, neither do we find the leaſt inconvenience ever follows thoſe who are attendant on the ſick in any ſtage of the diſtemper, therefore we preſume it is a complaint that does not carry any contagious principles with it, conſequently the offices that are incumbent on thoſe who are in alliance with the afflicted may be attended to with pleaſure, and without the leaſt apprehenſion of any pernicious effects ariſing from their compliance with the ſocial duties.

In

In the final ſtages of this diſeaſe, viz. ſchirrus or ſuppuration, the frequent changing of the air has moſt amazing and ſalutary effects, particularly if the patient can by any means take a voyage to the other preſidencies, reſiding a ſhort time at each, then proceed to China, and reap the advantage of the cold months, which will generally, with trifling medical aſſiſtance, remove the diſeaſe, and thoroughly reinſtate the patient's health.

Two inſtances have occurred in the courſe of our practice, where the patient had ſuffered much by a ſevere courſe of corroſive ſublimate, as they informed us, which, on the appearance of the hepatic ſymptoms was immediately diſcontinued, and the antiphlogiſtic method ſtrictly followed with bleeding, bathing, &c. the ſymptoms ſtill kept their ground, and could not be expelled either by medicine, regimen, or change of air. Thus theſe gentlemen lingered on eighteen or twenty months with a multitude of vagrant and moſt perplexing complaints, which rendered their lives a continual ſcene of unhappineſs.

unhappineſs. When application was made to us, their ſituation was truly deplorable; reduced by long indiſpoſition and medicines, they were rendered mere ſkeletons, their countenances were cadaverous, their pulſe ſmall, tenſe, and frequent, ſevere cough, which often promoted vomiting, and without any expectoration, alſo acute pains under the cartilages of the ribs, oppreſſive and laborious reſpiration, eſpecially when expoſed to cold air, inflammations of the eyes, lax habit of body, and frequent attacks of the incubus. This is a diſmal catalogue of complaints to be centered in one body, and it was a very clear poſition, that little could be expected from medicine. However, for the ſatisfaction of the afflicted, it became expedient to make uſe of ſome remedies, after enjoining obedience to diet, (which was entirely of the vegetable kind) and premiſing ſhort rides in the morning, they were put under a courſe of phyſic, which, however ſimple it may appear, had the deſired effect. This is all we ſeek for in medicine, or all that can be done by a more complex mode

mode of preſcribing. We judged that this train of evils had originated from a courſe of mercurials (which ought never to be uſed in hot climates, for reaſons every phyſical gentleman is well acquainted with) and that the immediate acting cauſe of irritations proceeded from the remains of this medicine lurking in their habit.

From theſe ſtated opinions we drew the method of cure by adminiſtering thoſe remedies which have an immediate effect on the active powers of mercury, viz. by giving twice in a day one ſcruple of common flowers of ſulphur mixed with a ſpoonful of honey. At firſt this preſcription did not ſit well on their ſtomachs, but brought off a quantity of frothy fluid, tinged with a yellowiſh hue, and cauſed violent guſts of fœtid eructations; however, as there was no encreaſe of the complaints, the formula was continued, and in ten or twelve days a copious diſcharge from the inteſtines followed, which in a little more time moderated to almoſt the natural ſtate; a general perſpiration came on, and continued regularly during the cure,

which

which was happily effected in ten weeks: the parties remain in health, though now they dare not take thoſe liberties with their conſtitutions which they before accuſtomed themſelves to. The firſt indication of benefit received by this application was the abating of the cough, which only became troubleſome in a prone poſition, and now was attended with copious expectoration of green viſcid pus. By this we were capable of drawing the prognoſtics, which were agreeable to the iſſue of the caſes; after this cough diſappeared the pulſe was more regular, though fuller, than in the natural ſtate, the pains of the inferior portion of the thorax grew leſs, the urine became very turbid, and depoſited a thick brown ſediment, they ſlept ſound, and their appetites grew very keen. The laſt remaining ſymptom was the inflammation in the eyes, which gradually wore away before the medicine was diſcontinued.

After all the ſymptoms had diſappeared, bathing in the ſea was recommended, which, by giving the muſcles a quicker tenſion

tenſion and firmneſs, enabled them the ſooner to recover their ſtrength.

We have now remarked the general principles of the putrid bilious fever, hepatic dyſentery, and hepatitis; we ſhall proceed next to deſcribe the ſymptoms of each particular diſeaſe, with their method of cure, in their proper order, as they are related in this chapter.

CHAP.

CHAP. II.

Of the Symptoms of the putrid bilious Fever.

THE bilious remitting and intermitting fevers that are prevalent in the autumnal ſeaſon are occaſioned by the hot moiſt ſtate of the atmoſphere, which is always predominant at this period in the Eaſt Indies, and by its duration or quantity of moiſture, contributes more or leſs to produce theſe diſeaſes. Theſe are cauſes that ought to be well conſidered by every inhabitant, either as a preface to the certainty and fatality of the complaints, or as a precept to the means of prevention; for by guarding and fortifying ourſelves againſt the inconveniencies of climate and ſeaſon, we do not only mitigate the ſeverity of diſorders, but oftentimes prevent the attack.

The fevers that are conſequent on this ſtate of the air very frequently are epidemical, and ſimilar to thoſe bilious diſorders

diſorders that are companions of all low, flat, and marſhy countries. The effects produced by theſe diſeaſes being badly cured, or lurkingly ranging long in the habit after the material ſymptoms are ſubdued, are always obſtructions in the abdominal viſcera, but moſt generally in the liver. Therefore, as theſe fevers have ſuch affinity with thoſe of other places, although in much higher latitudes, and the method of cure being the ſame, we ſhall not enter into a deſcription of them, but refer our readers to that moſt juſt and elaborate treatiſe on diſeaſes of the army, written by Sir John Pringle, where the ſymptoms are ſo accurately and minutely deſcribed, with the method of cure ſo judiciouſly laid down, that it is impoſſible to miſtake the diſeaſe*. But the putrid bilious fever of the

* The puerperal fever, in the Eaſt-Indies, is always of the putrid ſort, which is fully demonſtrated by the very great fœtidneſs of the diſcharges, and alſo by the ſudden debility and dejection which immediately follows; therefore there is not a moment to be loſt. For in all putrid diſeaſes, the more early the application, the greater probability of ſucceſs.

Medicines

the Eaſt-Indies being endemical, and materially different from the other remittent fevers, occaſioned by the animal juices being in the moſt exalted ſtate of putrefaction, and the ſolids unbraced, and univerſally relaxed, the fate of the patient is conſequently ſuſpended on a few hours, which, if properly employed, will generally lead to a favourable iſſue; but

Medicines of active qualities ought always to be adminiſtered; becauſe in hot climates, particularly in continental ſettlements remote from the ſea, putreſcency advances very ſpeedily to diſſolution. Ipecacuanha quickened with tartar emetic, in the firſt ſtage of this diſorder, is an excellent remedy. After the loathing and inclination to vomiting are abated, ſmall doſes of four or five grains of ipecacuanha muſt be adminiſtered every two hours: but if, as it ſometimes occurs, that this diſorder has a greater effect on the bowels than on the ſtomach, which occaſions a ſevere and rapid diarrhæa, then it becomes expedient to uſe ipecacuanha with rhubarb, and ſmall quantities of calomel, to deterge the inteſtines, and carry off the offending matter; when this is completed, the other mode is to be purſued. In this complaint I have not obſerved any medicine to be more effectual than repeated ſmall doſes of ipecacuanha, always ordering a plentiful quantity of nutritive and emollient drink, which will blunt the acrimony of the contained fluids, and ſheath the alimentary canals from irritation.

when

when any neglect has been committed by either of the parties the opportunity is seldom regained, and the event too often fatal. This state of the disease sometimes shews itself in the hot and dry months, but is generally confined to the canicular heats, or close of the rainy season, when the human body is more liable to indisposition, not only from relaxation, &c. but also from the checking of perspiration by the humidity of the atmosphere: therefore we cannot make use of too many precautions, to prevent this inconveniency, but should also use every means in our power, whenever any default has taken place, to promote this most salutary evacuation, which will essentially assist nature to throw off any offending morbific matter.

All ages, and both sexes are liable to this disorder, though the robust and the healthy always suffer more from the immediate consequences, and future effects of this complaint, than the delicate and infirm; and the issue is much oftener fatal in the former than in the latter case.

caſe. The diagnoſtics are the ſame; it is the goodneſs of the conſtitution that occaſions a variation of the ſymptoms from high and ſtrong to feeble and ſlow. The habit having received the principles of diſeaſe, which are now thoroughly matured, they burſt out and afflict the patient in a moſt alarming and tormenting manner. The pulſe is full hard and quick, frequently jumping and ſtarting; then vibrating for a ſhort period in its natural ſtate, and again throbbing as before; the countenance is exceedingly fluſhed, and there is a remarkable floridneſs behind the ears, and along the courſe of the jugular arteries, ſometimes extending to the poſterior part of the neck and back, great and univerſal heat in the thorax and abdomen, involuntary urine, which is likewiſe blackiſh or of a very deep yellow, a coldneſs and paleneſs of the feet and legs, which does often reach to the hips, profuſe bleeding from the noſe, the head exceedingly hot and painful, particularly the forehead, the eyes watering, and lips convulſively trembling,

the breathing laborious and very ſhort, oppreſſive pain in the præcordia, the heart throbbing exceedingly hard againſt the enſiform cartilage, with conſtant deep fetched ſighs, emiſſion of white frothy fluid from the mouth, the breath very hot and offenſive, ſpaſms in the muſcles, particularly in thoſe of the hands and arms, the head drooping on the ſhoulders, with delirious ravings and inarticulate ſounds; the ſkin is parched, and the patient refuſes to drink or take any ſort of fluid; large petechial ſpots now cover the ſurface of the body, and are particularly thick on the thorax. This is the favourable criſis; but, when no petechiæ make their appearance, and the ravings, with other ſymptoms are preſent, along with an involuntary expulſion of the fæces, the patient is not far from death. Now the ſcene is generally cloſed in twenty or thirty minutes, and nature gives up the conteſt. Theſe are the ſymptoms which are the inſeparable companions of the putrid bilious fever, and agreeable to the ſtrength or feebleneſs of the patient, do

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all preſent themſelves in a few hours; or, by a ſlower progreſs, ſtep on from ſymptom to ſymptom until the routine is performed, unleſs we can prevent it by a ſpeedy and efficacious application of remedies.

PROGNOSTICS II.

CHAP. III.

THIS diſeaſe has ſome particular ſymptoms that do indicate the approach of death, or determine the criſis to be favourable. When there are not any livid or inflammatory ſpots in the laſt ſtage of the diſeaſe, on the breaſt, arms, or abdomen, we may venture to pronounce that death will inevitably follow. Involuntary voiding of the fæces and urine, with profuſe hemorrhage from the noſe, are mortal ſymptoms; great reſtleſsneſs, and ſtruggling to get up and walk, with deleterious ravings, are very unfavourable. Partial perſpiration with violent purging or vomiting, bring on inſtant death; continual coldneſs of the extremities, with inability to move them, is generally unfavourable. The reverſe of theſe prognoſtics are preludes to a certain recovery, and the greater

greater the crop of petechiæ, the more confident we may be of the patient's doing well. Copious, univerſal perſpiration, or the repeatedly voiding of great quantities of urine, are very beneficial circumſtances to the patient. Many of theſe prognoſtics may be applicable to other contagious diſeaſes, which by their duration or ſeverity will occaſion an equal degree of relaxation and putrefaction.

CHAP. IV.

The Method of Cure of the putrid bilious Fever.

IN the cure of the bilious putrid fever, there are two diſtinctions to be obſerved, which are requiſite for regulating the method of practice, viz. The firſt is, where the patient has been long lingering, and, having hopes of the complaints wearing off by abſtemiouſneſs or ſtrength of conſtitution, has omitted applying for aſſiſtance, until the diſorder is ſo far advanced that he cannot any longer ſupport himſelf under it. In this caſe we obſerve the diſeaſe approach by all its ſeparate gradations, until the ſymptoms are fixed, with a greater or leſs degree of putrefaction; hence it will follow, that the mode of practice muſt differ from that which becomes immediately neceſſary, when all the complicated diagnoſtics make their appearance in the courſe of a few hours. In the former caſe we have time to obſerve the

the various and frequent terminations of the diſorder, and to adopt an application of remedies ſuitable to the progreſſive ſymptoms, which will enable us to form a more compact and diſtinct opinion of the nature of the diſtemper, and give us a deſirable opportunity to encounter on equal terms with the diſeaſe; but, on the other hand, when the putrid bilious fever aſſumes the complicated form, and all the ſymptoms are preſented in a ſhort ſpace of time, then not a moment can be ſpared to wait the iſſue of medicine or variation of ſymptoms. Now it becomes indiſpenſibly requiſite, as we value the life of the patient, to have inſtantaneous recourſe to powerful remedies, which are to be plentifully thrown in. The diſeaſe in this elevated period will not admit of any parleying or delay; the poſition is a clear and fixed one, ſubdue it and the patient is ſaved. Every mitigated period is to be attentively watched, that we may not for a moment omit the adminiſtration of medicine, to aſſiſt nature in producing ſhort and compleat remiſſions; when this is once effected, we have little to apprehend.

But, if by any imprudent omiſſion of embracing theſe critical opportunities, we ſuffer the diſeaſe to proceed on to the future more violent and encreaſed paroxyſms, in all probability the like favourable criſis will not return; but nature in a little time will ſink with the intenſity of heat. From this we may readily and very clearly conceive how much care and attention is requiſite from the phyſician, and how ſedulouſly he ought to remark every period and variation to ſnatch the patient from the jaws of death.

Theſe precepts being premiſed, we are to proceed in the firſt place by cleanſing the inteſtinal canals with lenient emollient laxatives; on all occaſions avoiding any of the draſtic cathartics, which ſhould never be uſed, unleſs in the decline of the diſeaſe, when there ſometimes may be an uncommon ſluggiſhneſs in the habit: then perhaps it will be adviſeable to make uſe of the milder alvetics, which by remaining long in the firſt paſſages will promote a more copious and ſalutary evacuation,

evacuation, than thoſe medicines which by their greater activity ſo ſpeedily operate. After the bowels have been cleanſed, and the nauſea or effort to vomit continues, ipecacuanha quickened with emetic tartar, ſhould be taken, diluting the ſtomach plentifully during the operation. Although this complaint indicates a ſuper-abundance of bile in the firſt paſſages, yet it does not always follow that any bilious vomiting is effected by the emetic. Indeed, when this complaint has increaſed, and repeated emetics have been taken, it generally falls out as before; therefore to ſave the patient a great deal of diſagreeable trouble, if the firſt emetic does not anſwer the deſired effect, by bringing off any bile, it will be more advantageous to deſiſt from a repetition of this method, and endeavour to relieve nature by the other evacuations. For this purpoſe, there is not any thing more univerſally ſucceſsful than ſmall quantities of tartar emetic with nitre, made into draughts by the addition of ſome of the agreeable ſimple waters, which are to be repeated and con-

continued until a copious perſpiration breaks out, or the draughts, which is ſometimes the caſe, paſs off by the inteſtinal canals. Now it is to be obſerved, that if neither of theſe ends are anſwered, and nature ſtill groans under the ſymptoms, ſmall quantities of camphor are to be added, to leſſen the irritation and check the ſtimulus; by doing of which we generally compleat our deſires. The ardency of this ſymptom being reduced, oleaginous purges, compoſed of manna, ſweet oil, and cinnamon water are to be further adminiſtered, in ſmall quantities, until the bowels are thoroughly cleanſed: but as many patients are exceedingly coſtive in the firſt attack of the diſeaſe, and the common method here will not produce any effect, we then give a bolus compoſed of five grains of calomel and half a drachm of rhubarb, which generally ſits well on the ſtomach; and if the fæces are not conſiderably indurated, will in a little time procure one or two coſtive motions; ſome will have four or five ſtools, the latter ones fœtid and bilious; ſhould this event not take place, and the

coſtiveneſs

coſtiveneſs remain, we repeat the bolus as before, and aſſiſt the patient by a warm oleaginous clyſter. Diſagreeable as this practice is, we cannot always ſucceed without it; for when the anus has been long locked up, and the inferior bowels loaded with hard knotty excrement, it will require more time than can be now allowed to remove this obſtacle. It will be in vain to attempt a total or compleat remiſſion of the fever during the coſtive ſtate, which feeds all the ſymptoms; therefore whenever this is the caſe, every means muſt be made uſe of to bring about the evacuation. When theſe methods have been plentifully uſed, and the pulſe is not at all relieved, with continuance of the other ſymptoms, we may ſafely take away ſix or ſeven ounces of blood, obſerving to adjuſt the quantity either by the pulſe, or the relief the patient experiences during the operation. For if the pulſe do not riſe on the firſt four or five ounces being drawn, and the pains become more acute, we are by all means to deſiſt, and not venture to reduce the patient by too great a loſs of

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the vital fluid. Now let us remark the caſe ariſing from this evacuation not anſwering our expectations, the pulſe does not riſe, neither are the pains relieved, yet the patient has ſome tendency to a general perſpiration, which is often interrupted by a ſlight thrilling chillineſs. When the other diſcharges have been procured, the next great object nature points out to us is, to promote a copious general diaphoreſis. To anſwer this intention,—let it be remembered that hot ſtimulating remedies will not be beneficial; on the contrary, they not only encreaſe the torrid complaints, but plunge the patient into a variety of murmurings. Now the mild antimonials, with camphor and ipecacuanha, are to be given in ſmall quantities and repeatedly; often aſſiſting the afflicted with cool diluting draughts of barley-water, acidulated with lime-juice, or juice of oranges, citrons, &c. yet, notwithſtanding, if the habit is ſo obdurate as to reſiſt the effect of theſe applications, plunging the body into a tepid bath of water and vinegar will certainly bring on this critical diſcharge. Sickneſs

and

and inclination to faint may ariſe from the immerſion, but this is not an object of any conſideration; therefore we are not to attend to the entreaties of the patient, but perſiſt in the application till we note the tendency to perſpire: and although there may not be any viſible perſpiration on the body, or in the more common emunctories, yet we ſhall clearly perceive the advantage the ſick has received, by his ſpirits being raiſed, his breathing relieved, (being now free and open) his pulſe full and ſoft, and in a little time a generous ſlumber ſucceeding. 'Tis now we may obſerve whether the habit has any tendency to perſpire, if not, when the ſleeping is over, the bathing muſt be repeated, continuing the medicines every half hour or hour. When the perſpiration is not ſo diffuſive as is neceſſary for the benefit of the patient, and the complaint of rigid reſpiration ſtill exiſts, with periodical pains in the thorax and back, the pulſe rather hard and tenſe, a large epiſpaſtic is to be applied either on the affected part, or between the ſhoulders: we prefer the former mode becauſe it is not ſo very inconvenient

convenient to the patient, and conſequently does not break in ſo much upon the ſhort intervals of doſing, which, in this ſtate of the diſorder, are ſalutary and reviving. If the cantharides raiſe the impetus of the blood by their active ſtimulating powers, barley-water, with camphor and nitre is to be liberally drank, to ſheath the animal fluids from this common conſequence, and prevent any detention of urine. The ulcerations ſurrounding the abraded ſkin (although very troubleſome) are amazingly ſerviceable, by draining the body of a great deal of acrimonious fluid, which would otherwiſe lie in the habit, and be a freſh exciting cauſe to the continuance of the ſymptoms. During all theſe proceſſes the ſick are not to be indulged with any animal broths or ſoups, for which they naturally have a great and continual craving. Should there be any neceſſity to comply with theſe importunities, a ſubſtitute of thin ſago, or congee, with a ſmall portion of generous madeira, may be allowed: but the acidulated drinks allay the inſatiable thirſt, and promote the diaphoreſis, therefore

fore there cannot be any abuſe or error committed, if the party complies with theſe rules. The bliſter may be kept open many days, or until the convaleſcent ſtate, according as the neceſſity of the caſe may require. When the diſorder is in its early period, theſe methods will bring on a compleat remiſſion in eighteen or twenty hours; though very often there are ſlight intervals much earlier; but they are always of too ſhort a duration to make uſe of; conſequently when the diſorder is not in the aggravated ſtage, it is not imprudent to wait for the compleat termination, by which means the patient's ſtomach will more eaſily bear the cortex, and can take a more frequent repetition than in thoſe ſhort intervals, where it frequently happens that the draughts are loathed, and cannot be retained on the ſtomach. When the cure is compleatly effected, the patient appears in a very favourable light, and thinks himſelf diveſted of all diſeaſe.

Theſe are flattering hopes indeed, and ought not to be controverted; for the effects

effects produced in the human body by pleaſing imaginations are always productive of good conſequences, by adding a freſh ſtock of vigour to the debilitated mind, which enables the afflicted to bear the preſent evils, and fortifies them againſt the future conſequences. Therefore we ought always to encourage theſe pleaſing anticipated ideas, rather than to point out the ſtate of the ſecond attack following the remiſſion. The inſtant we perceive the remiſſion coming on it is the prelude to our certain advantages, an opening given us by nature to remove and eradicate the diſorder: then we are to have recourſe to the bark either in decoction, electuary, or draughts, adjuſting the quantity to the ſtrength of the patient's ſtomach, and repeating it by the ſame ſtandard. Many throw off the bark on its firſt uſe, which muſt not deter us from the continuance, though it will be right to add a little port wine, or thebaic tincture, theriaca, &c. to prevent this diſagreeable conſequence, for if we cannot make the medicine ſtay with the patient, we are deprived of the advantage con-

conſequent on the remiſſion. Should this be the caſe, on return of the fever the ſolution of tartar emetic with nitre is to be more liberally drank, not attending to the degree of ſickneſs or purging that may reſult from it; being well aſſured, if the patient is not conſiderably reduced that the effect does not ariſe from feebleneſs of the ſtomach, &c. but from an undue ſecretion of bile, which drains into the paſſages and ſtimulates the primæ viæ. Indeed this mode of practice ſeldom runs counter to our expectations. Now although the firſt remiſſion has not produced any favourable turn to the patient, yet, by the uſhering in of the ſecond interval, we may plainly diſcover a great many circumſtances that clearly point to a recovery. Brightneſs of the eyes, clearneſs of the countenance, great vivacity and chearfulneſs, craving to eat, deſiring to get up, which by every means ſhould be encouraged, as well as the neceſſary duties of waſhing, ſhifting, &c. Cleanlineſs is a great promoter of health, and there is not any thing more refreſhing to the ſick than a punctual obſervation of

theſe rules. We muſt here give the bark freely and often, notwithſtanding it may be loathed a little, the patient muſt perſevere, and drink now and then a ſmall draught of red port, or claret and water. This point being gained, and the remiſſions fully compleated, the cure will be ſpeedily effected, for whenever we can compel an acute or continuant fever to degenerate into a remittent, or any irregular form, the iſſue is generally certain and favourable. We now proceed to that ſtate of the putrid bilious fever, which with all its combined powers invades our conſtitutions, and at once makes good its lodgment without any prior approaches. Such a very formidable and potent adverſary, that it demands our ſtricteſt attention, for, unleſs vigorouſly attacked on all points, it will moſt certainly carry the fortreſs.

The patient is now brought into moſt imminent danger, not only by the acuteneſs of the diſeaſe, but by the little opportunity given to repulſe and thwart the diagnoſtics, which are always very elevated

vated in this ſtage of the diſorder, particularly, if before, the patient was robuſt and healthy. Then we cannot avoid commiſſerating with the afflicted, who, from a ſound ſtate of health, is at once reduced to all the calamities of a moſt ſevere diſorder: yet ſuch is the wiſdom of the Omnipotent Being, that, by permitting the cauſes of good and evil to be mutually blended, we are taught that there is not any ſtate of body, or ſphere of life that is ſecure from the attacks of diſeaſe, nor any man, however wretched his ſituation, who may not draw portions of felicity from anticipating eternal happineſs. The junction of ſymptoms being now formed, (which is verified by the innumerable complaints of the patient) we are to be obſervant of the diſtinguiſhing ſymptoms that require the lancet: when a ſtaring wildneſs of the eyes, with redneſs, inattention to thoſe about him, profuſe hemorrhage from the noſe, proneneſs to action, pulſe low and feeble, pain in the hypogaſtric region, &c. independent of the other ſymptoms, a few ounces of blood may be ſafely taken

away; yet, although the whole of theſe diagnoſtics are not recited, and ſome of them appear to be created by other ſymptoms, yet, when there is an inflammation of the eyes, and naſal hemorrhage, we need not be doubtful reſpecting phlebotomy; for the patient can well bear the loſs of a few ounces of blood, and be benefited by the evacuation. Immediately after the operation, it is adviſeable to give a briſk cathartic compounded of ſenna, tartar emetic, and rhubarb, taken in ſmall quantities, until ſeveral copious motions have been produced. If the medicine is not ſo active as expected in this ſituation of the patient, or ſhould be thrown off the ſtomach, we directly apply the tobacco fumigation until the ſtools come away freely. A tube, made of reeds, bound with ribbon, which is uſed for ſmoaking the hookar, and called a ſnake, is made uſe of on this occaſion, to abate the heat of the ſmoak, which with the common apparatus frequently excoriates the anus, but by this addition the inconveniency is removed. This point being gained, the next great object is to leſ-

ſen the velocity of the blood, and to promote perſpiration. Whatever has a tendency to relax and ſoften the external component parts, bids fair for accompliſhing this end. Bathing, as before directed, fumigations and fomentations of vinegar, very often compleat this buſineſs, when other methods have proved ineffectual. Frequent draughts of ſaline nitrous mixture, ſometimes adding a ſmall portion of tartar emetic, and giving the patient liberal draughts of lemonade, will generally promote the diaphoreſis, or produce ſhort exacerbations. In this interval a ſtrong decoction of bark, with elixir of vitriol, is to be repeatedly given to check the ſeptic tendency of the animal fluids, and procure a good remiſſion. But in this ripe ſtate of the diſeaſe, it is very ſeldom that the circumſtances are ſo favourable; on the contrary, when the ſkin is cloſed, and will not emit any moiſture, it is proper to make free with camphor, opium, cinnabar of antimony, or tartar emetic, (which is believed to be the beſt of all the antimonial preparations) made into ſmall boluſſes with any agreeable conſerve, con-

tinuing the bathing with tepid vinegar, and ſatiating the patient's thirſt with lemonade, and a ſmall quantity of generous madeira to ſupport the drooping ſpirits under this heavy burthen. By carefully watching the afflicted, and duly obſerving the ſtate of the pulſe, we may often note a debility and ſoftneſs in its vibrations, which will not manifeſt itſelf ſufficiently for us to fix the paroxyſms; here the ſtrength of the ſick appears to be too far gone to compleat nature's intention; for it is not always mathematically certain, that the ſtrength of the diſorder is equal to the vigour of the patient, or that the remiſſion keeps pace with the torrid paroxyſms. Therefore when we have a diſorder to encounter that deviates from general principles, we muſt compleat the deficiency by attention and applications, or ſtrike the balance by removing the ſurplus. When the pulſe indicate the impetus of the blood to be abated, we muſt not wait for further effects, but inſtantly embrace the favourable criſis, and adminiſter the bark with red port, elixir of vitriol, or both, as the ſituation of the ſick

ſick requires. Although there are not any inſtant proofs of an advantage reſulting from this application, yet, if we have a few ſuch chances, and apply the cortex liberally, nay, even after the pulſe beſpeaks the feveriſh exacerbation to be at hand, we may be confident of reaping great advantages from this mode of practice: but as it is often the caſe, that all our intentions are baffled by the ſtrength and progreſs of the diſeaſe, and we cannot raiſe either a perſpiration, or occaſion an interval to take place, we then muſt rely on nature for the iſſue, ſupporting her plentifully with acid diluents and wine. Should the diſpnœa increaſe with periodical fœtid purgings and hemorrhage from the noſe, we then may be certain that death will ſpeedily follow. But if neither of theſe circumſtances occur, and the patient lies ſtupid and doſing, we are to expect the appearances of the petechiæ upon the breaſt, &c. which eruption is always exceedingly beneficial, and inſtantly relieves him. Now we have not any thing to fear, and but little to do, except ſupporting the habit by ſtrengthening it as much

as the ſituation of the caſe will admit. That will aſſiſt nature in this very ſalutary operation, which, when effected, will be followed at firſt by partial perſpirations, and finally by very copious and general ſweats. During the proceſs, very ſmall portions of tartar emetic ſhould be adminiſtered, with ſaline draughts to promote the cuticular eruption, and thereby throw the morbific matter on the ſurface; when the petechial ſpots go off, and the pulſe is open though low, the bark is to be freely uſed, in ſuch a form as is moſt agreeable to the diſeaſed, continuing the uſe of medicine, until the health is thoroughly eſtabliſhed. When a coſtive habit of body comes on after the eruption, a gentle cathartic would be proper, and afterwards keep the body open, which can always be done by adding a little magneſia or ſoluble tartar to the bark. The great feebleneſs that ſucceeds this diſorder, is remedied by cold bathing and nutritious diet, avoiding the extreme of repletion from eating too freely, by increaſing the meals, and leſſening the quantity, which will ſit eaſy on the ſtomach,

ſtomach, and promote the deſired effect. When the patient is ſufficiently recovered to undergo ſome fatigue, ſhort rides on horſeback, in the cool of the morning and evening are recreative, and will conſiderably aſſiſt to reſtore the priſtine vigour of the body: he may then venture to return to his former method of living, though it will be certainly prudent to guard againſt exceſſes of any ſort, leſt the body, by now being more irritable, ſhould again relapſe into the former diſeaſe.

During the whole courſe of this ſtate of the putrid bilious fever, we cannot be too careful in preventing the effluvia from the ſick being pernicious to thoſe who, by affinity to the patient, are frequently viſitors, or whoſe lot it is to attend on them; therefore the room ſhould be kept as cool as poſſible, permitting the air to circulate freely through it; the bed cloathing is to be often changed, at leaſt every morning, and the other conveniencies are all to be well cleanſed. In addition to all, freſh limes and fruit may be diſperſed about the chamber, and removed

every

every other day; vinegar is to be often ſprinkled about the bed, and lavender or roſe water may be thrown on the covering, by theſe means, if we do not deprive the effluvia of the infection, we at leaſt reduce its malignity ſo much, that the attendants have very little to fear.

CHAP.

CHAP. V.

Of the Symptoms of the Hepatic Dyſentery.

THE bilious flux is often an effort of nature to remove and carry off the principles of other diſorders; therefore, whenever we ſuſpect that to be the caſe, it demands a more confined uſe of aſtringents, &c. for by preventing the courſe of the evacuation, we interrupt the intention of nature, and hazard the life of the patient. Now it is abſolutely requiſite to be well informed reſpecting his former ſtate of health, whether he hath or hath not any good reaſon for aſcribing the diſorder to any particular cauſe. Theſe circumſtances being conſidered, the primary diagnoſtics are moſtly a univerſal laſſitude and dejection of ſpirits, heavineſs of the eyes, with an inclination to ſleep, nauſea and flatulencies, which are often attended with efforts to vomit, the patient complains much of thirſt, yet has not any craving to ſatisfy it, obſtructed perſpiration, and his pulſe, during the gripings,

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is ſmall, tenſe, and feeble, but when free from this pain, it is rather full, hard, and quick; ſometimes the patient in this ſtate finds himſelf not very well, for a day or two before the other ſymptoms appear; ſhould he then have aſſiſtance, the further progreſs of the diſtemper will probably be ſtopped. But this is ſeldom the caſe, becauſe the patient does not judge himſelf ſufficiently ill to require medical aſſiſtance; the diſeaſe then gathers ſtrength, and creeps on to the more malignant and obſtinate ſtate. He then ſees his error when it is too late to prevent the conſequences: for the ſymptoms having lurked about the habit for ſome days, the flatulency increaſes, and occaſions a great inflation of the abdomen, with ſevere and tormenting gripings, ſometimes in the umbilical region, often in the left ſide, then wandering to the oppoſite, and down the back, until a great diſcharge of wind, or a motion is produced, ſhort intervals of eaſe take place, then chilline ſs and rigors ſucceed, with the former ſymptoms alternately

nately attacking and moving about, until the ſame thing is again effected. The firſt ſtools are excrementitious and knotty, with ſtraining and teneſmus, ſoon after they become frothy, fœtid, and bilious, and excoriate the labia of the anus, which is always a cauſe of increaſing the ſymptoms by additional irritation. Hence the teneſmus is more vexatious, and the ſtraining increaſing, occaſions an abraſion of the inteſtinal mucus, and an oozing of the ſereous humour; the ſtools are now watery and acrimonious, ſometimes a little frothy, and often blended with yellow or green bilious fluid, the gripings more acute and fixed, and in the end an effuſion of blood follows, with vomiting of frothy offenſive chyliferous juice. The countenance now grows cadaverous, the patient is periodically delirious, the blood comes away involuntarily, the pulſe ſinks and intermits alternately, and in a few hours he dies. It generally happens in the hepatic flux, that the ſanguinary diſcharge does not ſhew itſelf; this, we are induced to believe, depends

more

more on the ſtate of the liver, than on any other cauſe; for we obſerve, that whenever there is a great heat in the abdomen, eſpecially in the hepatic region, with thick reſpiration and continual ſtrangury, the evacuation is much earlier changed into the bloody ſanies, than when theſe complaints are not felt by the patient, which fully beſpeaks the great degree of inflammation preſiding in the former inſtance; the other caſe evinces the very acrimonious ſtate of the bilious fluid, or, what is equally common, deep ſeated ulceration in the liver; for it is very evident when there are not any external appearances to guide our examination and enquiries on this point, that we may be very confident of the real ſtate of the viſcera, by noting the ſtools, which, if not bloody, for the firſt five or ſix days of the diſeaſe, are ſeldom ſo afterwards, unleſs on the approach of diſſolution; when the violent aggravated ſymptoms have dilated the orifices of the ſanguinary tubes. Indeed thoſe ſtools are not to be deemed bloody that have filaments, or a ſmall coagulum of blood floating in them,

for

for this may be the effect either of conſtant ſtraining, or the preſſure of indurated fœces in the rectum. We ſhall be the more juſtified in this opinion if the pain in the back is very acute and the heat about the anus and perineum very intenſe. Another circumſtance preſenting itſelf in this caſe is, that in every motion, the ſtools are not exactly ſimilar. In the morning (if the patient has not been often diſturbed in the night, which in the infancy of the diſeaſe is not always the caſe) they perhaps have bloody filaments, &c. mixed with them; the reſt of the motions during the day will not produce any more inſtances. Another obſervation is, that the ſanguinary ſtools in the early period of the diſeaſe are always very offenſive and nauſeous even to the patient; in the other ſtate this is never the caſe, the ſtools ſmelling excremental rather than otherwiſe. The moſt plain indication that the ſeat of this ſtate of the diſeaſe originates in the liver, is when the ſick cannot bear much preſſing on the epigaſtric region, without its creating inſtant gripings and pain: ſo that

when

when theſe caſes occur in the compre-henſive manner related, we cannot be at a loſs for remedies. The pathognomic ſymptoms of each ſtate being ſeparated, the cure is rendered more eaſy; and if the diſeaſe is complicated, or appears without theſe apparent external cauſes in hot countries, and bilious habits, we have every reaſon in our favour for attributing the flux to the liver, particularly when we reflect, that by a number of our own diſſections, as well as thoſe of other medical gentlemen, we have not been able to diſcover any juſt grounds for altering our opinions. Now if the bowels were the ſole and principal ſeat of the diſeaſe, it is a very evident poſition, that ulcerations would be found in the inteſtines, with many other marks that might lead us to inveſtigate the ſource of the evil. But as in nine times of ten we obſerve, on opening the abdomen, that the liver or biliary bladder and ducts are diſeaſed, and the other viſcera ſound, it can be no great preſumption to declare, that, the ſource of the diſorder.

Men

Men of ſtrong vigorous habits, who are ſuddenly attacked with the hepatic dyſentery, are moſt commonly afflicted with the inflammatory diagnoſtics, and on the contrary, the patients are moſt liable to thoſe ariſing from a more mature ſtate of diſeaſe in the liver.

CHAP. VI.

Of the PROGNOSTICS.

THE hepatic flux, like other bilious diſeaſes, has ſome certain indications of the fatality of the event. The proofs are not numerous, but invariably the ſame. When the ſtrangury is conſtant, with the intenſe heat of the perineum and hepatic region, and the patient has been often blooded, &c. without relief, it is a very unfavourable circumſtance, and beſpeaks ſpeedy death; it is alſo equally certain when the emetics have not produced any effect. Hiccup, with apthee and muſcular ſpaſms, diſpnœa, and involuntary emiſſion of the urine are mortal ſymptoms; continual deſire to go to ſtool, with an unmixed ſanguinary diſcharge or evacuation of purulent pus, pulſe ſinking, and intermitting, are very clear preludes to eternity. The contrary of theſe prognoſtics are always favourable, and proclaim the patient's recovery.

CHAP.

CHAP. VII.

On the Method of curing the Hepatic Dyſentery.

THERE are two conſiderations before we proceed to the cure of this diſorder. The firſt is, whether the patient was before healthy, and is ſuddenly attacked, having the apparent inflammatory diagnoſtics: the ſecond to be acquainted with, is, whether there has been any previous indiſpoſition, or the patient has been by any means enfeebled and reduced, or hath had any external ſymptoms. By attending to theſe circumſtances, the method of cure will be better adjuſted, and ſooner compleated. Let us firſt view the caſe of the robuſt ſubject. Here, as we before obſerved, it is attended with a greater or leſs inflammatory diſpoſition, conſequently it is requiſite to bleed according to the circumſtances of the patient, or ardency of the inflammation, therefore previouſly to the adminiſtering

of any medicines, ſix or eight ounces of blood are to be drawn away, and in an hour afterwards a briſk cooling cathartic of nitri ſal polychryſt. and rhubarb may be given. There is not any thing tends more to the cure than well-timed repeated purges; if the ſtools are very bilious and hot, a ſecond doſe is to be taken ſoon after the other has done operating. But we generally in this bilious ſtate of the ſtools compound the ſecond draught or bolus of rhubarb, calomel, and emetic tartar, which always moſt thoroughly cleanſe the inteſtinal canals. If, after theſe methods the nauſea is ſtill troubleſome, a briſk emetic of ipecacuanha and tartar emetic ſhould be given to relieve nature agreeably to her own intentions; for whenever the bile has a greater inclination to paſs by the mouth than otherwiſe, we ought by all means to aſſiſt it by repeated lenient emetics, which will very much facilitate the patient's recovery. Such large and frequent evacuations may appear to be bordering on extremes, but it is by this means only that we ſtand any chance of mitigating the ſymptoms; for the

the ſick are not ſo much reduced by the effects of remedies as by the ſtrength of the diſeaſe. On the other hand, diſtempers in hot countries are much more rapid and fatal than in high northern or ſouthern latitudes, and from this conſideration require more ſpeedy and frequent applications. Indeed any omiſſion on this ſide is always very unfavourable to the patient, and perplexing to the phyſician. Theſe truths being ſo univerſally allowed, will be a ſufficient apology for any deviation from the theory or practice of other medical gentlemen, reſiding in different climates; for the mode of cure muſt be comprehenſively viewed and adapted to the nature of the complaint. If by theſe repeated evacuations the gripings continue ranging about the bowels, ſtimulating and promoting the inteſtinal diſcharge, we are to lull theſe tireſome ſymptoms by opiates and emollient diluents, which, by blunting the acrimony of the contained fluids, will in all probability, procure relief; but, as it too often happens in this ſtate of univerſal relaxation and debility, that every ſort of fluid

drank liberally, or ſparingly, directly paſſes off by the anus, which not only increaſes the complaints of teneſmus and griping, but generates a very great quantity of flatus, filling the bowels, and rendering the patient very uneaſy and diſagreeable to himſelf. Now, if this happens to be the ſtate of our patient, we aſſuredly will endeavour to prevent and remedy theſe inconveniencies, by bracing alexipharmics, which are always to be adminiſtered in ſubſtance, avoiding as much as poſſible any thin gruels, &c. Thick congee, or what is preferable, thick ſago without ſugar (though a little red port may be allowed with it) is to be ſipped in ſmall quantities, more as a nutritive kind of diet than as a diluent. If the opiates only procure temporary relief, we generally, after the effect of the dormitive potion is off, give a ſmall quantity of manna with ſolution of gum arabic, and a little cordial water to check the aſtringency of that medicine. The griping and teneſmus are always the latter ſymptoms of the diſeaſe, and continue as long as there is any irritation in the habit, or

increaſed

increaſed heat about the anus. Clyſters of various ſorts have been made uſe of to remedy thoſe evils; but, if the griping is ſeated high in the abdomen they will have little or no effect, as not being able to reach the ſource of the complaint, conſequently unable to redreſs it. We do not mean to infer from this, that clyſters are to be aboliſhed from practice; on the contrary, when the ſeat of the complaint is within reach of ſuch methods, they are always productive of the moſt beneficial conſequences, either by ſheathing the bowels and obtunding the fluids, or by promoting the expulſion of the morbid fœces, &c. In the former inſtance, where the griping is ſeated high, there is not any thing affords more permanent relief than tobacco fumigations, which paſs through all the convolutions of the bowels, and are taſted in the mouth. Another good conſequence ariſing from this mode is, that they have not any additional quantity of air thrown into them, as is the caſe with a common ſyringe; add to which the ſoporiferous quality of tobacco in this form is ex-

ceedingly great, the patient inſtantly falling into a gentle generous ſlumber, which quells all his pain, and he is more conſiderably refreſhed than by any opiates we can preſcribe. Should the repetition of theſe methods prove ineffectual, and the diagnoſtics ſtill keep their ground, we are not only to repeat the bleeding with a view to abate the inflammation, but apply tepid bathings on the abdomen, thighs, and feet; revulſions ſhould likewiſe be made with large bliſters, guarding againſt the ſtimulus of the cantharides, by giving camphor, opium, &c. It often happens that ſpacious bliſtering brings about very ſpeedy changes, by diverting the cauſes of the irritation; for this reaſon the bliſters are to be kept open as long as poſſible, and repeated agreeably to the exigencies of the caſe; barley water, with camphor and nitre, chalk, julip, with gum-arabic, nitre and camphor, may be drank to promote the diſcharge of urine. Promoting perſpiration is now of the higheſt conſequence to the patient, and may generally be effected by warm bathings, with repeated ſmall doſes

of

of camphor, tartar emetic, and opium, ſupporting the ſick plentifully with light nutritive diet, and warm pleaſing drinks. When the gripings abate, the teneſmus is more quiet, the ſtools decreaſe in number, and their conſiſtency begins to alter from thin and watery to thick and excrementitious. In this caſe, the pulſe ſhould vibrate near the natural ſtate, and if there are not evident proofs of inflammation ſtraggling about the body, we may venture to compleat the cure with corroborating aſtringent remedies, ſtrong decoction of bark, or the bark in ſubſtance, with addition of gum, myrrh, and ſmall portions of opium. Camomile tea, for general uſe, may in this ſtage of the diſorder be ſafely and efficaciouſly given, now and then throwing in a ſmall doſe of rhubarb, or ſome lenient laxative, to carry away any accumulated bilious fæces, which will perhaps ſometimes be very ſlow in paſſing through the bowels.

But in the other ſtage of the diſeaſe (notwithſtanding the methods before uſed, the

the diſorder increaſes, and the patient is very much alarmed, dreading the event, which appears to him inevitable) we are not to permit the ſolicitations of the patient to influence our method of proceeding, nor be under doubts becauſe we have been hitherto diſappointed: on the contrary, the more formidable the diſeaſe, the greater ſhare of credit we acquire by repulſing and ſubduing it; and if finally, its powers are ſuperior to ours, we have theſe few conſolations remaining, to quiet the minds of the afflicted parent or diſtreſſed orphan, that the paths to death are numerous and uncertain, and that diſſolution is the lot of human nature, inſeparable from our exiſtence, and is the tribute to be paid by all; therefore as ſorrowing and grieving avail not to the dead, we ſhould not add to the diſagreeableneſs of our ſituation by pre-judging any events, but make uſe of that philoſophy which is diſtributed in the minds of all reaſonable beings, and which, if properly reflected on, is ſufficient

cient to ſupport us againſt all adverſities.

The ſymptoms of the diſeaſe increaſing, and the patient in conſequence being conſiderably reduced, are very unpleaſing reflections; however, there is not any time to be ſpared, but our utmoſt endeavours muſt be exerted. The griping and purging are equally ſevere, the ſtools are bloody and more numerous, the appetite almoſt loſt, and the pulſe low and very feeble. In this caſe clyſters compoſed of the decoction of bark, with gum arabic and opium are to be freely uſed, to brace up the bowels and appeaſe the irritation. Infuſion of tamarinds, with rhubarb and emetic tartar, may be given every two or three hours, to carry off the putrid bilious fluid in the inteſtines, and alſo to promote a general diaphoreſis. When the ſanguinary evacuation is not very ſevere, although the teneſmus and griping are conſtantly haraſſing the ſick, a tobacco fumigation with opium will procure long intervals of eaſe, but when it clearly appears to be occaſioned by ſome lurking

cauſes

cauſes in the rectum, the clyſters are to be adminiſtered, varying the compoſition as the nature of the caſe indicates; ſome will require emollient and deterging, others bracing and corroborating applications; in fact, thoſe that procure the moſt eaſe ought always to be preferred. If the infuſion inclines the patient to vomit, an ipecacuanha emetic is to be taken, and then repeat the mixture. Pills compoſed of calomel, camphor, ipecacuanha, and opium, are amazingly efficacious: in this ſtate of the diſeaſe, they promote perſpiration and reſt, and by deterging the bowels gradually, they will generally decreaſe the motions, and render them of a better conſiſtency. Theſe pills are to be taken one or two every hour, ſupporting the patient with red port and congee, or chicken broth, and now and then ſome red wine, as a cordial; for the very low ſtate of the patient ſtands in need of ſomething more than common ſlops to ſtrengthen and invigorate him. Indeed we have not obſerved any pernicious conſequences ariſe from ſmall quantities of ſolids; and in the more advanced

vanced ſtate, ſatisfying the patient's craving appetite, may be often attended with very good effects. Contradictory as this is to phyſical rules, yet, when nothing detrimental follows, but very often ſudden and good changes are wrought, we ſurely are right in taking the moſt ſucceſsful method for our guidance and direction. When the orifices of the minute blood veſſels continue dilated with an inceſſant draining of the vital fluid from the anus, a clyſter of alum, gum arabic, and ſal martis, will often check the diſcharge, and in a ſmall courſe of time reſtore the inferior bowels to their due tone, and when the heat circumſcribing the hepatic region, is not increaſed, and the pulſe does not riſe to any degree of celerity, ſmall draughts of the cortex in ſubſtance, with ſalt of ſteel and myrrh, will greatly aſſiſt nature to recover. Theſe remedies can ſeldom be uſed until very plentiful evacuations have been adminiſtered, leſt, by checking the diſorder, worſe conſequences ſucceed. Hence we may conclude, that as long as there is much degree of irritation

tation in the habit, a free uſe of aſtringents will be prejudicial and dangerous; but if we can ſo reduce the ſtimulus, as to keep it either dormant or carry it off, then we may with ſafety preſcribe thoſe medicines. By theſe means the ſtools will become excrementitious, the ſtraining and teneſmus will be periodical, and the griping will wander from place to place, ſimilar to flatulent cholics; the appetite will recover, and a few days will compleat our moſt ſanguine expectations. When the irritation is not to be mitigated, but on the contrary increaſes with continual nauſea, ſmall tenſe pulſe, and after the motions full and frequent, acute gripings in the umbilical region, and intenſe heat round the liver, with ſtools entirely blood, this caſe is too deplorable to admit of palliation, and the patient is ſometimes delirious and fluſhed in the face, all at once his countenance becomes cadaverous, his pulſe ſinks, and he dies with the evacuation of blood. Two caſes have occurred in our practice, where the patients on the firſt attack had the clear ſanguinary diſcharge, and notwithſtanding

withſtanding every aſſiſtance was called in, and every method uſed that could be thought the leaſt applicable to the diſorder, they both died: the firſt, who was a ſtrong and a remarkable healthy active man, lived only two days; the other, who was younger, though of a delicate frame, ſurvived four days, they both periſhed in the action of voiding blood, and during the illneſs had very little fever. Theſe caſes we were at firſt inclined to think derived their origin from a rupture of ſome of the blood veſſels, but obſerving the diſcolouration of the bodies which ſucceeded very early after death, and the very diſagreeable flatus that iſſued from them by preſſure, and the preceding diagnoſtics of the diſeaſe, being ſimilar to thoſe of the other ſtage of the diſorder, it was reduced to a certainty that the diſtemper was the ſame, and that the inveteracy of it could only be attributed to a greater degree of putrefaction in theſe habits, accompanied by a very diſſolved ſtate of the blood, and a total relaxation of the ſolids. We ſhall have occaſion hereafter to ſpeak of theſe caſes in the diſ-

diſſections which will illuſtrate this latter opinion, by ſhewing as far as we are able to proceed, that the determination of ruptured veſſels was too premature and inconcluſive. We now arrive at the other ſtage of the bilious dyſentery, which is not attended with the ſanguinary diſcharge, and does not carry any very urgent tokens of inflammation along with it; on the contrary, it apparently ariſes from the very acrimonious and putreſcent ſtate of the bile, or from ſome defect in the liver or biliary ducts, which probably has been created by former inflammation or obſtructions; and perhaps, both theſe cauſes may be the immediate exciting one. The cure, in this ſtate of the patient, is generally effected, though oftentimes extremely difficult and tedious. Here the firſt and moſt material object is to cleanſe thoroughly the inteſtines and firſt paſſages, which is to be effected by purges of rhubarb and mercury; afterwards, ſhould the nauſea and vomiting be troubleſome, bark emetics are to be taken, which in this ſtate of the diſeaſe, frequently bring off a quantity of bile,

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and promote a gentle diaphoreſis. When the emetic is ſluggiſh, or does not perform its office ſufficiently, it is adviſeable not to repeat it, but rather to aſſiſt nature in her endeavours to carry away the diſeaſe by the inteſtines; for this purpoſe ſmall doſes of ipecacuanha, calomel, and Caſtile ſoap, are very efficacious, not only by facilitating the abdominal evacuations, but alſo by removing obſtructions in the viſcera, and increaſing the natural perſpiration, which is always moſt ſalutary when leaſt occaſioned by art. The firſt ſtools which are promoted by rhubarb, or neutral ſalts, are plentifully mixed with natural excrements; in this caſe the ſtraining or griping will not be very acute. When the pulſe indicates too much fever in the habit, with thirſt and dryneſs of the ſkin, purgatives of ſalt and tartar emetic, or infuſion of ſenna, with the antimonial preparations, are preferable; though it frequently happens, that the ſenna gripes the patient exceedingly, and in conſequence thereof does not beſtow ſo many favourable periods on the ſick, or anſwer the expectations ſo well: for

one of the principal obſervations in this caſe is to abate or lull the ſtimulus, that the afflicted may not be inceſſantly harraſſed with teneſmus, griping, &c. therefore, whenever from any cauſe this medicine affects the patient in ſuch a manner, it is not proper to continue it, but recourſe ſhould be had to the ſalts or any other cooling cathartic. After theſe evacuations the patient will feel an amazing alteration; the pains conſiderably decreaſed; the nauſea removed, with an additional flow of chearfulneſs; and the pulſe more free and open; it is neceſſary then to advance the cure by repeating the purgatives as the ſymptoms vary. When the gripings are long and very acute, inſtant relief may be had by giving the purgatives as before, or thoſe other remedies, which by being retained for a greater length of time will generally procure more laſting benefit. When the patient is free from flatulency, and complains of coldneſs in the ſtomach and bowels, ſmall quantities of camphor are to be added to the pills, and one or two taken every two or three hours.

By

By theſe methods the chillineſs and flatulencies will be corrected, and the ſtomach ſo much invigorated, that the complaints cannot generate ſo haſtily. In three or four days the fœces are expelled without any excrement, being of a frothy bilious nature, ſometimes blended with purulent, white, or greeniſh pus: theſe ſtools come away without any, or with very little griping, and they are often ſo quick, that the patient has not time to remove his cloathing, or ſtrength enough to prevent the involuntary diſcharge. The evacuation is ſometimes very fœtid, accompanied with flatulents guſts, and at other times has ſcarcely any ſmell, that being rather ſtercoreous than otherwiſe; the urine is periodically hot, ſometimes coming off freely, and at other times with difficulty. Here much depends on the degree of heat in the abdomen and perineum; for when theſe parts are nearly of the natural ſtandard, ſuch conſequences do not enſue, and vice verſa. In this debilitated ſtate frequent purging is not ſerviceable, on the contrary, it rather encreaſes the feebleneſs by enlarging the

diſcharge. Hence it becomes requiſite to uſe corroborating and ſtrengthening applications, now and then adminiſtering a laxative to prevent the bowels from retaining any obnoxious fluids: nutritious cooling diet, with emollient ptiſans, are to be liberally preſcribed, and when the fever is not very great, which now ſeldom occurs, the patient may be indulged with a ſmall quantity of wine as a cordial. This ſpecies of dyſentery is very diſagreeable to the patient, becauſe the motions are ſo frequent, and do not give any warning. When there has not been any motion for four or five hours, the abdomen is exceedingly tight, very much tumified, and the reſpiration greatly impeded: a gentle purgative generally carries off theſe ſymptoms, which appear to be more the effect of a relaxed ſtate of the bowels, than the reſult of generated air; for this kind of fulneſs is not attended with eructations, or any windy diſpoſitions. Strong decoction of bark with myrrh and ſal martis made in ſmall draughts, ſhould be next given repeatedly to reſtore the tone of the ſtomach

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and bowels, and thereby remove the inconveniency: clysters of bark decoction, with gum arabic and alum, and if the irritation about the rectum is troublesome, opium may be added with a view of quelling the symptoms: but if the stimulating principles arise from excoriations, or too much sensibility in the bowels, created by the tediousness of the discharge, and attended with a procedentia ani (a circumstance that considerably increases the other symptoms, and is sometimes attended with inflammation) in this case oleaginous and emollient clysters are much preferable, because they alleviate the complaint and prevent a relapse. When these symptoms are appeased, the other clysters are very advantageously used, which, by their constringing, deterging qualities, materially facilitate the progress of the cure. The stools will now be less bilious and frothy, the appetite tolerably good, and the abdomen not susceptible of any pain by pressure, consequently the restoration method is to be advised and the patient assisted in the recovery by a proper regi-

gimen. During the convaleſcent ſtate, ſmall doſes of ipecacuanha ſhould be given each or every other day at going to reſt, to promote the expulſion of the bilious fluid by the bowels; and it is alſo expedient to adminiſter now and then, a gentle laxative to anſwer the ſame intention. When nature is ſufficiently reſtored to ſtrength and vigour, ſea bathing may prevent the ſudden relapſes which ſometimes are occaſioned by indiſcretion. And the patient cannot be too careful of himſelf after his recovery, gradually returning to his former way of living.

Hitherto we have deſcribed this diſeaſe in the favourable form conſequent on this ſtage of it. We have further to remark, that when the methods before recited are not effectual, (the diſcharge increaſing both in quantity and purulency, tearing down the conſtitution in a moſt precipitate manner) there is but little to be expected from medicine; but opium and calomel may be liberally given to cleanſe the paſſages and procure eaſe. Diet of the moſt

moſt nutritive ſort, with emollient drinks, and wine, are to be freely allowed, otherwiſe the ſick will ſoon periſh by the evacuation, he now requiring an amazing quantity of ſuſtenance to ſupport him under ſuch a profuſe diſcharge. If the evacuation is violent for four or five days, and a cough comes on, or the bloody ſanies appears in the ſtools, this being the exalted ſtate of the hepatic flux, nature cannot long reſiſt it; the ſymptoms being ſo very violent, that if they do not conſiderably abate, he muſt certainly die.

CHAP.

CHAP. VIII.

On the Symptoms of the Hepatitis.

BEFORE we proceed to treat of the ſymptoms, it will be neceſſary to ſay, that the diagnoſtics of this diſeaſe vary conſiderably in different conſtitutions, and in ſuch a manner, that if we are not converſant with the previous ſymptoms we ſhould not ſuſpect them to be indications of one and the ſame diſorder; which will not only lead the practitioner into an erroneous mode of practice, but deprive the patient of that effectual relief he naturally looks for from a courſe of medicine.

It is not only in the firſt attack of the diſorder, that we are to form our opinion reſpecting the certainty of the complaint, but in the ſecond ſtage alſo; for men who are in the zenith of health are more frequently affected with the diagnoſtics of the ſecond ſtate, than with the ſymptoms of

of the prior; and although in the healthy, the nature of the diſorder is the ſame, yet, according to the ſtrength of the afflicted perſon we find the ſymptoms more or leſs violent. Thus, a robuſt, athletic man will have the ſymptoms in every ſtage of the diſeaſe much more violent on him, than a thin perſon, whoſe frame is more irritable. Thoſe who are of a coſtive habit of body generally ſuffer very much by this complaint, and frequently after the cure, are ſubjected to ſanguinary drainings from the hemorrhoidal veſſels.

Men who are reduced by diſeaſes, or a whimſical application of medicines for imaginary evils, are always attacked by this diſorder in a regular manner, and are generally relieved before the ſecondary or final effects take place; therefore to be well acquainted with the various approaches and progreſs of the complaint, it is neceſſary to diſtinguiſh the ſymptoms as they occur in an enervated habit, which may be divided into two claſſes, the firſt of which, attended with inflammation

mation and pain, is removed by evacuations and mercury; the ſecond, that originates in obſtructions of this viſcus, with all its alarming ſymptoms, is cured by mercury only. Then we will remark the diagnoſtics peculiar to the healthy and vigorous, which may be alſo claſſed as the former, with this difference, that the ſecond ſtage of the afflicted becomes the firſt in the healthy, and is cured by the like means: the ſecond, or final period in the healthy patient, is ſuppuration or ſchirrous; the method of cure the ſame.

The ſymptoms of the firſt ſtate of the diſeaſe, in the reduced habit, conſequent on medicine, or the effects of a bilious remitting fever, are a great flatulency in the ſtomach, with ſour and fœtid eructations; putrid and hot borborygmi; acute pains in the muſcles, of the thighs and legs; drowſineſs, particularly after taking any nouriſhment, with univerſal laſſitude and inactivity; in the morning an inclination to vomit, and ſometimes a little frothy bilious fluid is brought off; a ſevere periodical pain in the right lumbar region,

region, ſtretched along the ſpermatic chord, frequent deſire of making water, which is always crude and pale. In thoſe who have a ſmall abdomen and large thorax, the pain of the loins does not follow, but a dull fixed pain under the enſiform cartilage, with tenſion of the recti muſcles; frequent ſneezing and a plenitude about the epigaſtric region, the pulſe generally tenſe, ſmall and rather full, ſometimes riſing to the natural ſtate; the ſkin hot and dry, and the circle of the hepatic region remarkably heated. This is a tedious, but exact deſcription of the patient's complaints in the early part of the diſeaſe, which, if properly attended to, may generally be prevented from running into the ſecond ſtage. But if, from a particular idioſyncracy of conſtitution, the diſorder gets worſe on the applications, the next effect will certainly follow, and is to be treated accordingly. This, although tedious and alarming, ſeldom or ever proves fatal, and is diſtinguiſhed by the following ſymptoms; a rotundity of the hepatic region, with

with great pain under the falſe ribs, and the liver very ſenſible to the touch; a ſlight dry hectic cough; oppreſſive ſighing, and great difficulty to read, or repeat long ſentences; frequent periodical purgings, attended with griping in the umbilical region; depraved appetite; vagrant pains in the right ſide of the thorax; with laborious reſpiration, particularly when by accident a larger quantity of air than uſual is received into the lungs; total inability of blowing the noſe, followed by acute pains in the diaphragm and inferior part of the ſcapula; inflammation of the eyes; with ſmall quick tenſe pulſe; an univerſal parched dry ſkin, with inſatiable thirſt; a contraction of the right pectoral muſcle, and an aptneſs to incline the body forward; tremor of the hands, and a remarkable pale whiteneſs of the nails; the urine voided in ſmall quantities, and ſeldom, though always exceedingly high coloured and hot. Theſe are the moſt material indications of a fixed hepatitis in the female habit, which, according to the age or ſtrength of the patient, will be more moderated or encreaſed.

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We now come to the other mode of the hepatitis acting immediately on the body of a healthy vigorous man (who, as we before obſerved, is unable to aſſign the cauſe of his indiſpoſition) reducing him in a few days to the moſt feeble ſtate. It has been before noticed, that the ſecond ſtage of the valetudinarian is the firſt of the healthy; but we are likewiſe to remark, that the diagnoſtics of this period (in this caſe) are amazingly more acute and rapid than in the former; for in one day all this train of evils will be complained of, but in the other, the complicated ſymptoms move ſlowly: having therefore remarked the invariable rules, which nature, in this ſtate of the diſorder, points out for our inſtruction and the benefit of mankind, we ſhall not any more enlarge on this head, but advance to the final ſtage of the diſeaſe, by deſcribing it as operating on the body of a healthy perſon. It is natural to conceive the ſtate of that man who, from a full enjoyment of vigour and ſtrength, is ſuddenly plunged into an abyſs of miſery and pain. Now attacked by one of the moſt

moſt potent enemies health has to cope with, which, without the greateſt attention and care of both parties, will not be repulſed, but continue until it hath thwarted and overſet every means that can be made uſe of to prevent its progreſs, then the event becomes certain; nature unable any longer to protract the ſiege, having retreated to her laſt ſtrong hold, yields up the diſputed conqueſt, and ſinks into eternal ſlumber. We beg leave to apologize for this metaphor, having been led into it through an idea of the great and conſtant apprehenſions and anxieties, which patients labouring under this ſtage of the diſeaſe, always ſuffer.

The diagnoſtics of this ſtate of the diſorder are very violent and ſevere; grievous pains in the forehead; ſtaring wildneſs of the eyes; exceeding acute fixed pain under the ribs, extended to the right pap; hard laborious cough; and by reclining the body forward, in the action of ſtooping, an immediate inclination to vomiting follows, with a ſtupid dizzineſs,

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and a reflection of green rays, but the patient on resuming an erect posture in a few minutes recovers his sight; the urine is rendered in small quantities, turbid, and of a saffron colour; the breathing short and oppressively heavy, with frequent singultus; and an universal parched heat over the body; total loss of appetite and perspiration; costive and insatiably thirsty; startings and twitchings of the muscular system; the countenance remarkably pale, with a blackness surrounding the mouth, and the eyes tinged with an inflammatory yellowness; the right side of the abdomen considerably enlarged, very dense and hard, and, if forcibly pressed, occasioning a pain in the scapula, and an instantaneous sickness, with coughing and sneezing; the pulse small, hard, and quick, frequently fluttering, and very often the vibrations are not to be distinctly felt, then instantly filling and rising to almost the natural state, and again returning and sinking as before; amazing periodical tremor of the hands, and in some plethoric thin habits the ancles are puffed and swelled; those that do not cough much, have

have always a great diſcharge of acrimonious fluid from the noſe, with continual ſpitting, ſometimes accompanied with large ulcerous blotches in the mouth and tonſils; in this mature ſtate of the diſorder, the patient can reſt on either ſide, but not on his back without being immediately affected with incubus; but in the leſs advanced ſtate of it; or after plentiful evacuations this is a common ſymptom, and is occaſioned by the ſize and weight of the liver, which when lying on the left ſide, falls down from the diaphragm, and rends the adhæſion, or ſtretches the acreted part, either of which will occaſion the ſymptom; but in the former caſe, the liver is ſo much increaſed in ſize, that there is not ſufficient room in the abdomen for this accident to occur, which reaſoning will alſo hold good before the adheſions have taken place, or before the bulk of the liver is conſiderable. The ſeverity of the diſeaſe does not always depend upon the immediate ſize of the liver, but frequently on that of the gall bladder, or ducts, or the adheſions formed to the diaphragm, which is always the

caſe

caſe when the upper or gibbous portion of the liver is the ſeat of the diſeaſe. When the ſymptoms are ſevere, without any apparent enlargement on the right ſide of the abdomen, with little tenſion and hardneſs, yet, on preſſing the liver a ſickneſs, cough, &c. are brought on, it is a certain and manifeſt teſtimony that the diſeaſe is ſituated about the region of the gall bladder, and that this bladder, with the biliary ducts are principally affected; but, when the liver is in the large ſtate before related, it is the actual bulky ſubſtance of that viſcus which is diſeaſed. The pain in the ſcapula is alſo regulated by the foregoing circumſtances. We have related, that it is in the very enlarged ſtate of the liver that the ſuppuration ſucceeds with hepatic conſumption; in the other caſe, deep ſeated obſtructions, with ſcirrhus. Sometimes the abdomen is univerſally ſwelleed, with pain in the umbilical region; this originates from the entire maſs of liver being affected, and occupying a great portion of the left abdominal

ſphere. When the ſuppuration is matured, and breaks out with ſevere coughing and moſt copious ſpitting, the mercurial courſe will be exceedingly improper; the great object now, is to ſupport the patient with nutritious food, and emollient ptiſans. This is the firſt ſtate of the hepatitis that does not admit of a cure by mercury; and it is a very happy and pleaſing reflection to the afflicted, that in this diſmal period of the diſeaſe, the ſureſt means of recovery are veſted in themſelves; it being well worthy every man's attention, that medical aſſiſtance, on the firſt appearance of the diſorder, will nine times in ten prevent the fatality of it.

The ſecond ſtate of the hepatitis, which does not require the application of mercury, is where the confined matter ſhews an inclination to point outwards, and is always diſcernible by the prominency of the integuments, which riſe, when the ſuppuration is in the ſuperior part of the liver, in a conical form; but, when the collection

tion is lower down, and tends externally, the tumour is of a round flat ſhape; both may be eaſily diſtinguiſhed by the great fluctuation in them, and their yielding ſo readily to gentle preſſure, without creating pain.

CHAP. IX.

Of the PROGNOSTICS.

MEN of ſtrong robuſt habits, who are attacked with the laſt ſtage of the diſorder, are always in imminent danger. When the ſuppuration is fixed, and nature does not throw off the offending matter ſpeedily; or, if the accumulation exceeds the evacuation, ulcers are formed on the diaphragm and lungs, and ſometimes penetrate into the ſtomach, either of theſe caſes is mortal: it is alſo fatal if the pus falls on the inteſtines, and is not expelled haſtily, or if accompanied with blood. It is a bad ſign in any ſtage of the diſeaſe, when emetics are adminiſtered and do not operate, continual ſtupor and inattention, are alſo among the alarming ſymptoms; but if the patient ſuddenly loſes his inclination to drinking, and his pulſe ſinks and intermits, with oppreſſion of the thorax, and ſobbing, theſe

theſe are a prelude to certain and ſpeedy death. But if the afflicted pump off the matter very faſt, and partake of nouriſhment, it is very favourable. Large quantities of urine voided, either high-coloured or pale, partial ſlight perſpiration, and a great deſire to drink, are ſtrong indications of ſpeedy recovery; when the pulſe become more full, ſoft, and equal; when the tremor of the hands is gone off, and the ſleeping is not prolonged; and if a copious motion now and then is diſcharged, we need not be the leaſt apprehenſive of the termination: it is likewiſe favourable when the ſick betray frequent inclinations to move about, and complain of chillineſs, with emptineſs in the ſtomach, and their ſight is clear and diſtinct.

Having gone through the different ſtages of the diſorder, as they appear to affect the human frame, with the ſymptoms conſequent thereon, we flatter ourſelves the young practitioner will be fully able to aſcertain the exiſtence and ſtage of the

diſeaſe; whether it aſſumes a complicated aſpect, or more favourably approaches by ſeparate indications: we therefore proceed to the method of curing the different ſtages, as they progreſſively attack the valetudinarian or healthy.

CHAP.

CHAP. X.

On the Method of Cure.

THE ſympathic caſe of the hepatitis, occaſioned by any cauſe in the early or firſt period, attacking the convaleſcent or enfeebled habit, is to be cautiouſly treated; for the patient before having undergone and ſuffered ſo much from other diſorders, or remedies, cannot now bear thoſe repeated and plentiful evacuations, which the nature of the diſorder apparently requires. Therefore, when the diagnoſtics run high, it will be prudent to take away five or ſix ounces of blood, and if the ſymptoms do not abate, in two or three days more, the operation may be repeated, but the quantity of blood drawn off ſhould be leſs than before. Immediately after the firſt bleeding, a cooling purge of ſal polychriſt. or nitre, is to be adminiſtered and repeated as the coſtiveneſs of the habit indicates; the next morning an emetic, compoſed of

ipecacuanha and tartar emetic ſhould be given, for although the cathartic has done its office well, yet in a few hours there will be a great accumulation of bilious fluid either in the ſtomach or colon. If the emetic operates briſkly, and frothy bilious mixture is thrown off, the patient will be conſiderably relieved; but if, as it ſometimes happens, the emetic is tardy, and has not any effect, we are not by any means to preſcribe a ſecond, but aſſiſt nature in her endeavours, by promoting the inteſtinal diſcharge. The laſſitude and feebleneſs that always accompany diſeaſe, ſeem to point out that evacuations will encreaſe the complaints, but practice convinces us to the contrary; having obſerved, that although the medicines in their celerity exceeded our intention, yet, after the proceſs, their ſpirits and ſtrength are very much augmented. Theſe evacuations having abated the impetus of the animal fluids and occaſioned ſhort remiſſions of the ſymptoms, we inſtantly proceed to the mercurial application, compoſed of calomel, ipecacuanha, and ſoap; the mercury to be uſed as an alterative,

ative, and the quantity of ipecacuanha to be regulated by the condition of the patient's ſtomach: we cannot err with the ſoap. Theſe pills are ſmall, and to be given three or four times a day, one, two, or three at a doſe. An electuary compoſed of bark, and flowers of camomile is to be taken twice a day to fortify the ſtomach and bowels againſt the irritation, occaſioned by the acrimony of the fluids: if the pain and heat of the hepatic region continue the ſame, or in thoſe who have a ſmall abdomen, the pain under the enſiform cartilage does not wander, nor is removed, a large bliſter is to be applied, and continued open until the deſired effect is produced. The immediate uſe of cantharides, before the other evacuations, is very ſeldom beneficial; on the contrary, bliſters only encreaſe and prolong the irritation. During this courſe of medicine, the patient will every day find more eaſe, his reſt becoming natural, his appetite tolerably good, and one or two motions a day will be the principal apparent operation of the medicines; but, after the ſymptoms are leſſened, a general per-

perſpiration will come on, with a plentiful diſcharge of urine, which in a few days will compleat the cure. In ſome ſingular conſtitutions, this ſmall quantity of calomel will inſtantly affect the ſalivary glands, occaſioning a plentiful ſpitting; in this caſe, the celerity of the mercury being too great to remedy the evil, we have experienced the good effect of diſcontinuing the pills until the ſpitting is gone off, making uſe of crude mercury inſtead of calomel, and giving an additional doſe of the electuary to check the active powers of the mineral; for the longer it lies in the habit before the ſenſible operation takes place, the more advantage the ſick will receive by the remedy.

In the ſecond ſtage of the diſeaſe conſequent on the former, or appearing as the firſt attack in a healthy man, the method of cure will be the ſame, unleſs, under ſome ſpecial reſtrictions, it will be neceſſary to uſe evacuants before alteratives or deobſtruents. If, inſtead of the body being lax, and in the ſtate we before deſcribed,

deſcribed, there is a great and long coſtiveneſs, partial head-achs and tormenting pain in the ſagittal ſuture, and the noſe often dropping blood, plentiful evacuations ſhould be effected for the robuſt, prior to the other applications; now if theſe ſymptoms are not preſent when the patient ſtates his diſorder, the deobſtruent method is far preferable, until the ſymptoms are conſiderably abated; then, when the heat and pain, with rather a coſtive habit prevail, the evacuants are to be uſed alternately, as the caſe may require, always obſerving to decreaſe their quantity rather than otherwiſe; the great intention of ſuch medicines being either to promote general perſpiration, or expel the generated fœces. We now always make uſe of crude mercury and ſoap only; for the obſtructions in this ſtage of the diſeaſe being always formed and fixed, will require a more liberal uſe of this medicine than before: the electuary is alſo continued for the ſame reaſons as beforementioned, varying the quantity of mercury and number of the pills according to the circumſtances of the patient. If we find

find the pulſe riſe too high the cortex may be omitted for a day or two, and then repeated as before. In this period of the diſorder we do not apprehend the inefficacy of ſalivation (unleſs too ſpeedily brought on) but inſtead of checking it, we are to continue the remedies, ſupporting the patient with nutritive diet, until the proceſs is ſufficiently lengthened to effect the cure; which, though under theſe predicaments is very diſagreeable, yet is always effectual. When the ſpitting is riſen to its proper height, we are not ſuddenly to retract the powers of medicine, but omit them cautiouſly and gradually, proportioning the evacuation to the ſtrength of the afflicted. When the hepatitis ariſes from remote cauſes, created by a remitting fever, or inactive viſceral obſtructions, and is attended with great relaxation and weakneſs; either a copious or mild ſalivation is not adviſeable; yet the diſeaſe cannot be removed, or the obſtructions reſolved, without the aſſiſtance of mercury, but we muſt regulate the quantum of the mineral, ſo as to prevent this effect; ſometimes

times enlivening the ſluggiſh habit with ſmall doſes of camphor, and promoting the natural reſt and perſpiration, which is now much required, by a junction of the former with opium; mild lenient dormitives having an amazing efficacy, invigorating the patient, and thereby enabling nature to ſupport herſelf under, and throw off the diſeaſe. Neither, in this laſt recited caſe, are we to omit the cortex, but continue its uſe agreeably to the former maxim.

In the laſt ſtage of the diſeaſe attending a vigorous conſtitution, where the obſtructions are compleated, and the liver ſchirrous, or where the ſize of the liver is ſo very great that we have every thing to fear; a ſpeedy recourſe is to be had to the mercurial proceſs, and where (which is ſometimes the caſe) the medicine is very ſlow in its effect, we alſo make uſe of mercurial friction, with a view to bring on ſalivation. In this deplorable ſtate of the ſick, no time is to be loſt, leſt by delay it becomes too potent to be overcome; and ſevere as the diſeaſe now is, it is generally

nerally to be cured, if the medicines take the proper courſe, before the ſuppuration comes on. As the principal object is now to raiſe a free ſalivary diſcharge, the cortex is not to be adminiſtered, nor any other remedies, but the patient muſt be plentifully ſupplied with nutritive drinks, congee, thin ſago, water gruel, or weak chicken broth, throughout the medicinal courſe. If there are not any natural ſymptoms of ſuppuration, ſuch as coughing up thick purulent matter (which will not always be the caſe when the pus is not compleatly generated and matured) we are carefully to obſerve the abdomen, which if ſo as before deſcribed, we may be certain that the liver is not ſuppurated, and proceed to the cure accordingly: but if the tenſion and rotundity ſuddenly diſappear, with flaccidity, and a ſort of retraction when preſſed, with ſlight or manifeſt fluctuation, we then may be very clear in our ſentiments of the patient's ſituation, and endeavour to aſſiſt nature in this great operation to expel the morbific matter by expectoration, which is only to be done by emollient ptiſans and light nutritive

nutritive diet. Medicine here is of no ſervice; and tedious as the cure may be, yet, whilſt the patient freely throws up the ſanies, it is certain. When the diſcharge is by any means checked, we are to adminiſter thoſe medicines that have a particular tendency to promote and facilitate expectoration; and when the iſſue is thus favourably terminated, the diſcharge not being thrown off by coughing, nor the patient troubled with any exciting cauſes for that, we may venture to open the common channels of the body, and reſtore nature to her priſtine ſtate by well timed nouriſhing diet, moderate and gentle exerciſe, with now and then a ſoftening laxative to remove any collections that may be tardy in expulſion.

In the ſecond ſtate of the hepatitis, where the adminiſtering of mercury is highly improper, we are to aſſiſt nature in her intentions as much as poſſible by facilitating the progreſs of the tumor; and as ſoon as it is ſufficiently ſuperficial that we can reach it by an inciſion (though rather deep) we ought always to give it vent

vent by keeping the wound open, placing the patient ſeveral times in the day on his knees and elbows, gently preſſing the abdomen, and always, if poſſible, putting him in the moſt convenient attitude for draining the wound: by theſe means the matter will be brought to the opening, and diſcharged. If any of the pus lodges itſelf about the inner part of the inciſion, or on the ſurface of the liver, this will greatly aſſiſt the expulſion of it; but if a quantity of pus does by any means intrude on the neighbouring parts, great pain and trouble will thereby be created; for if the purulent matter is very acrimonious, it will corrode every part it fixes on, and ſpeedily bring on mortification and death; or when the matter is not of ſuch a corroſive nature as to occaſion this melancholy event, before it can be reabſorbed and effectually carried off, the patient muſt undergo great uneaſineſs, and the cure conſequently will be very much retarded. In this ſtate of the diſeaſe great reſpect is to be paid to diet, which muſt be regulated by the attending phyſician; for all that can be now done

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is to ſupport the patient with nutritious food, and promote the diſcharge. Medicines are entirely unneceſſary until the wound is almoſt or quite cicatrized, then all that is requiſite will be a portion or two of cooling laxatives; and thoſe of an oleagenous nature are preferable.

Two of theſe caſes have occurred in our practice. One, a young man, in whom the prominence placed itſelf on the lateral and inferior part of the enſiform cartilage, next the right epigaſtrium; an inciſion was made, and the matter continued to flow plentifully for eight weeks afterwards, when the wound healed, and he has ever ſince enjoyed an uninterrupted good ſtate of health. The other a married lady, mother of ſeveral children: the tumour pointed rather more naturally, and near the inferior edge of the true ribs; the inciſion was made, and an amazing diſcharge followed, every thing went on well, and the wound was reduced to the ſize of an hazel nut, but never could be healed, always throwing

out a greater or leſs quantity of matter according to the habit of body. When the diſcharge is trivial, ſhe always is perplexed with ſevere bilious ſymptoms, which bring on a copious evacuation, and then ſhe recovers for a ſhort time. This lady has had ſeveral very fine children ſince this diſeaſe has been ſo fixed, and is in other reſpects perfectly regular. Finally, when ſufficient ſtrength is obtained, ſea bathing and change of air, with frequent ſhort rides on horſeback are to be diſcretionally uſed. It being always adviſeable to follow theſe methods with a view more ſpeedily to reinſtate the health. And ſuch are the means we have univerſally practiſed with the greateſt ſucceſs, a ſucceſs more than equal to our moſt ſanguine expectations, or to the anticipated hopes of our ſuffering patients.

A great variety of opinions are eſtabliſhed reſpecting the propriety of adminiſtering the cortex in any form, when there is an increaſed impetus of the blood, or when any obſtructions are generated. This diſeaſe brings forward and ſupports an

an exception to theſe: for certain it is (however much practice may deviate from theory) that here we have the moſt convincing proofs of its efficacy, being thoroughly confident that, without the aſſiſtance of this medicine, mercury would not be ſo effectual, or the cure ſo certain; becauſe when the bark is given in this manner, it effectually ſtrengthens the ſtomach and bowels, conſtringes the relaxed veſſels, which enables them to bear the power of mercury without incurring the riſque of a greater feebleneſs, by which means the mineral will not only be prevented from running off by the ſalivary glands, but retained ſo long in the habit, that the obſtructions will be reſolved and removed.

We are the more fully convinced of the juſtneſs of this poſition, as it is not merely founded on our own practice, but raiſed on that permanent foundation which has been laid down by the moſt able * practitioner in India, whoſe me-

* Mr. Paiſley, late ſurgeon at Madraſs, very famous for his judicious treatment of hepatic diſeaſes.

thod was generally ſucceſsful, and univerſally adopted by the gentlemen to whom he communicated his ſyſtem. His death is a real loſs to the profeſſion, and will ever be regretted by all who had the pleaſure of his acquaintance.

OB-

OBSERVATIONS

ON

HEPATIC DISEASES.

PART III.

CHAP. I.

Obſervations on the Blood drawn from Patients, labouring under the Hepatitis.

THE extraordinary appearances of the blood taken from people afflicted with the hepatitis, and the different alterations that fluid undergoes in a few hours, are circumſtances that not only excite curioſity, but ſhould be attentively obſerved; that we may inveſtigate the cauſe of the diſorder, and in ſome meaſure account for the analogy that exiſts be-

tween this ſtate of the blood, and that of venereal patients. The ingenious Mr. Hewſon is of opinion, that by obſervations of this nature many new lights are thrown both upon phyſic and philoſophy; as by theſe inferences other methods of cure are adopted, than thoſe according to the preſent prevailing ſyſtem, which appear contradictory and ridiculous. The variety of experiments and obſervations made by this learned and indefatigable gentleman to prove the accuracy and juſtneſs of his reaſoning, have been univerſally received with the greateſt applauſe, and are fully ſufficient to ſtand the teſt of any ſcrutiny.

From the hints advanced by him, and the variable diſcolouration of the blood in the diſeaſe of the liver, we were induced to ſubjoin theſe few remarks; judging they may be of ſome future advantages to thoſe gentlemen who are not converſant with the diſeaſe, and that they may be the means of aſcertaining the reality of the patient's diſorder, when

when other material ſymptoms may not be ſufficient.

EXPERIMENT I.

A ſeaman rather advanced in life, who had been ill of a bilious fever, was ſuddenly attacked with ſevere ſymptoms of a diſorder in the liver. In the evening he complained very much, and as the ſymptoms were urgent, ten ounces of blood were inſtantly drawn away; the orifice being large, it flowed plentifully, and was with much difficulty ſtopped (owing as we conceived to the very diſſolved ſtate of it; this is a circumſtance that very often occurs in ſcorbutic * patients, and is not

* Patients that are highly ſcorbutic, and in the laſt ſtages of the diſeaſe, have ſometimes been bled to relieve the dyſpnœa. In this diſſolved ſtate of the blood, it is frequently very difficult to ſtop the bleeding; for although always placed in a recumbent poſture, and fainting is very common to them, we do not perceive it to have any effect in abating the evacuation. We have frequently been compelled to uſe a ſtrict bandage, and keep a continual preſſure on the orifice, until the intention was anſwered. Many who died of this diſorder, and have been bled late in the diſeaſe, after their death, on the leaſt motion of the arm, bleed amazingly free.

prevented by fainting :) the blood was exceedingly hot and black, the ſerum very red and glutinous, a thick ſubſtance of a green colour, interſperſed with air bubbles, formed the ſuperior ſurface of the craſſamentum, the bottom adhered very much to the veſſel that contained it, and was of a very looſe broken compoſition; the thermometer was eighty-nine, and the blood ſeparated in ſixteen minutes. Six days afterwards he was again bled to eaſe a great difficulty of breathing, eight ounces were received into a china baſon; it being quite calm, the thermometer was up to ninety-two degrees, the ſeparation took place in fifteen minutes, and the whole quantity of ſerum was formed in twenty; the heat of the blood was ſcarcely felt on the arm, the coagulum was covered with a red film, and a great quantity of frothy red ſerum reſted on this ſubſtance; the body of the cruor was very florid, and poſſeſſed of that adheſive quality which accompanied the firſt bleeding. After he had been under a long courſe of mercurials, and not any veſtige of the diſorder appeared, he was put

put on a cooling nutritive diet; during the convaleſcent ſtate we took ſix ounces of blood from his arm, merely to obſerve whether any of the former appearances exiſted in thoſe patients who have ſuffered ſo much by the diſorder; in this caſe we were agreeably diſappointed, his blood being in as good a ſtate as poſſible, excepting that the quantity of ſerum was not quite proportionable to the craſſamentum: this man perfectly recovered, and during eleven months that he continued in the ſhip had not any more illneſs. From the ſtate of his blood, which was ſo very ſimilar to the fourth experiment, we were inclined to think that ſome venereal taint had affected his liver, and were not entirely convinced (notwithſtanding his proteſtations) until other more certain ſigns occurred, which diveſted us of all prejudice reſpecting his veracity.

Experiment II.

A lad of fourteen years old, of athletic form, by plunging himſelf into a river, immediately after he had been at hard work,

work, contracted a ſevere cold. In three days he applied for relief, and from being a remarkable florid ſprightly looking boy, he now was very pale, languid and thin. His principal complaints were a continual drowſineſs, with acute fixed pain under the enſiform catilage extending to the inferior ribs, a heavy oppreſſive breathing, with ſlight cough; urine very hot and ſeldom voided, univerſal tremblings, his body ſtooping forwards, ſkin parched and dry, with thirſt not to be appeaſed. From theſe and other apparent ſymptoms we were certain of the diſeaſe being the idiopathic hepatitis. Accordingly twelve ounces of blood were taken away in two china baſons, the orifice was made large and it flowed very freely; that which filled the laſt baſon trickled down his arm ſcalding it to a very great degree; and all appeared black as it iſſued from the orifice. The baſons were placed near the thermometer, which was at eighty-four and eighty-five all this day; and the firſt portion of blood ſeemed to congeal ſooner than the other, but in viewing it as nicely as we could, without diſturbing the whole,

whole, it was obſerved that this did not penetrate very deep; a ſmall piece of gold coin (a pagoda) was gently laid upon the ſurface, and when the blood was removed, the metal was under the craſſamentum; now, if the coagulation had been perfected, the coin would not have penetrated the ſurface, conſequently it could not be ſaid to be coagulated. In twenty minutes the blood of both baſons was compleatly congealed, without any ſerum either oozing out, or appearing at the edges of the baſons. In half an hour more we noticed the ſerum had ſeparated, which was in a ſmall quantity very red and glutinous; this was carefully poured off, and the baſons placed in the ſame ſituation, to ſee whether more ſerum would iſſue from it: in another half hour the blood was in the ſtate we left it, only the ſurface of the craſſamentum covered with a green thick coat, adhering very firmly to the circle of the veſſels. This being taken off, the under portion of craſſamentum was very black, and of a looſe broken texture. Four days after, it was judged neceſſary to bleed again, in conſequence

of which ten ounces were drawn into two baſons as before, the mercury being up to eighty-ſeven, it was placed in the ſame degree of heat, and the ſubſequent circumſtances were obſerved; that the blood was not ſo black or hot as before, the ſerum in a ſmaller proportion and quite bloody, a great many air bubbles on the ſurface of the coagulum, under which was a tough film of a dark blue colour, the craſſamentum not ſo black as the former, but its texture nearly the ſame. In theſe baſons the ſeparation was compleated four minutes earlier than in the firſt bleeding. The patient was then put under a mercurial courſe for near four weeks, during which time a ſlight inflammation attacked his eyes; he was again blooded to the quantity of ſix ounces, the thermometer being at eighty-five, the blood was perfectly ſeparated in fifteen minutes. The ſurface of the craſſamentum was now of a bright red, the ſerum rather white, and in a good quantity, the coagulum much more denſe and firm, of its natural colour, and in ſix weeks he regained his former good ſtate of health.

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EXPERIMENT III.

A Gentoo female ſervant, ten years of age, had long been ill of a diſorder called by the natives the boſs, (or ſpleen) this girl came under our care after ſhe had, as was thought, been cured by the natives of the ſame diſorder. On a ſtrict examination, we found the enſiform cartilage drawn cloſe to the right ſide of the ribs, the abdomen much enlarged, very tenſe and hard, the reſpiration difficult and oppreſſive, the pulſe ſmall and tenſe, the body coſtive, and in preſſing the epigaſtric region an inſtantaneous ſickneſs, with ſneezing came on, bending the body forward, produced the ſame effect. This girl, although of ſuch an age, had not yet been ſubjected to the periodical evacuations. From theſe ſymptoms we were inclined to think that this diſorder was in the liver, and had every reaſon to conjecture, from the information we could get, that the former complaint was the ſame. Six ounces of blood were taken from her arm, and received into two tea cups; the mercury being at eighty-four; the blood

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was eighteen minutes in ſeparating, twenty-five before any ſerum appeared, and ten minutes longer in compleating it; the appearances of theſe cups were exactly ſimilar to thoſe in the former experiment. During the cure ſhe was again blooded, and the only difference between the blood now, and that of the ſecond bleeding in the other patient (which merited obſervation) was, that there was a greater proportion of ſerum than is common. Before ſhe was perfectly recovered, her menſes broke out, and continued an unuſual time; however, as ſhe was not apparently enfeebled by this evacuation, the method of practice was continued, on which in fourteen days ſhe perfectly recovered, and has ever ſince enjoyed good health.

CHAP.

CHAP. II.

Obſervations on the Blood of venereal Patients.

EXPERIMENT I.

A Robuſt, middle aged man, who had been the greateſt part of his life at ſea, complained of a heavy oppreſſive head-ach, and foreneſs of the throat, with difficulty of deglutition, yet there were not any ſigns of inflammation either about the tonſils or uvula; ten ounces of blood were taken from his arm into two ſmall baſons, and placed near a thermometer, which then ſtood at ninety degrees; we obſerved, during the bleeding, that the blood was remarkably hot and black, the former quality he complained of, by remarking, when it trickled down his arm (which was not till very late in the evacuation) that it ſcalded his ſkin. The firſt baſon ſtood twenty minutes before any coagulum was formed, and fifty minutes before it ſeparated any quantity of ſerum.

ſerum. The ſecond baſon depoſited the craſſamentum in the ſame time, but the ſerum of the latter oozed out and became general in forty-five minutes. Both theſe portions of blood had a very thick coat of a greeniſh hue, extended over the ſurface of the cruor, and adhered very firmly to the baſons; the ſerum was rather of a red colour and very glutinous; this ſubſtance being removed from the coagulum, it was remarked to be of a looſe broken texture, and very black. The ſymptoms being relieved, no medicines were given, and the following day he was tolerably well; on the third day he again complained of the ſymptoms, and more particularly of his head; his pulſe was now hard and very full, in conſequence of which ſix ounces more of blood were taken away, but the heat of it did not affect his arm, neither had it that black appearance when iſſuing from the orifice; the thermometer being at eighty-ſix, the heat was adjuſted to the firſt by the aſſiſtance of hot water. This blood was in a very different ſtate from the former, the ſerum being quite bloody, and

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in a very ſmall quantity; the ſurface of the craſſamentum was filled with air bubbles, which being pricked, diſcovered a thin tough ſubſtance of a dark bluiſh colour; the craſſamentum was not ſo black as the former, but of the ſame texture. In ſix days from the firſt bleeding, this man came again to the medicine cheſt, with a variety of complaints, very different from any of the former he had made, and which at once beſpoke the diſeaſe to be inveterately venereal, altho' he declared he had not had connection with any woman for five weeks before. A mercurial courſe was immediately made uſe of, and in three months he was perfectly recovered. During the illneſs it was expedient to bleed him twice; in the firſt of theſe bleedings, the blood had not any of the former appearances, the ſerum was in larger quantities, and of a white colour, the upper part of the craſſamentum of a bright red, the reſidue of the cruor nearly in the natural ſtate; the other quantity which was drawn late in the cure (excepting being a good deal

broken down) had not any of the other morbid appearances.

EXPERIMENT II.

A young man, aged eighteen years, of a delicate frame, who had been at ſea two years, complained of a gonorrhœa, which he had contracted twelve or fourteen days. The inflammation threatening the affected parts very much, it was deemed prudent to take away eight ounces of blood: as it trickled down the arm, he obſerved the heat was diſagreeable to him. This baſon was placed near the thermometer, which then ſtood at eighty-one degrees. The craſſamentum was fifteen minutes in forming, and three more before compleated; the ſerum was in a ſmall quantity, of a red colour; the external coagulum was of a fine cinnabar colour, the reſidue black and very adheſive. During the cure, which was very much protracted by the intenſe heat of the ſeaſon, and the continual inflammation fixed in the parts, it was deemed requiſite to repeat the former evacuation; accordingly eight ounces of blood were drawn from his arm, which

which flowed freely from the orifice, and without any complaint of its heat. The thermometer ſtood at ninety degrees, and in twenty minutes the blood was completely ſeparated, which did not ſhew any morbid appearances; ſoon after this ſecond bleeding, the inflammatory ſymptoms diſappeared, and in a few weeks his health was perfectly reſtored.

Experiment III.

An infant of nine months old, at the breaſt, had been infected by the nurſe with an inveterate venereal complaint, which terminated in death. Four ounces of blood were drawn, which was very much diſſolved; the craſſamentum formed in ten minutes, and depoſited an extraordinary dark coloured ſubſtance on the bottom of the cup; the ſerum did not ſeparate until four minutes after, when the texture was thin, ropy, and very red; the upper part of the gluten was ſtudded with a number of blue pellicles containing air, the under ſubſtance tough and adheſive; the air at this time was cool, ſeventy-eight degrees being the

greateſt height of the thermometer in this day. In conſequence of this, the nurſe (a Gentoo) was next day blooded, who apparently was healthy, being luſty and active, only her eyes looked heavy and ſleepy, or there were no ſigns of diſeaſe; the blood was entirely the ſame as in Experiment I. and ſhe lived only three months after the child, though there were never any venereal ſymptoms on her.

We have obſerved, in bleeding a number of patients in Bengal, during the rainy ſeaſon, and at the approach of the colder months, when the humidity of the air is very great, that the blood is always of a florid red colour; this we conceive ariſes from the atmoſphere being at this time ſo much impregnated with nitre, and may be the effect of the air on the lungs, being ſo long accuſtomed to inhale ſuch vapours. We are induced to form this opinion, becauſe in the other months in this climate, we have never noted the ſame appearances.

A great variety of obſervations of the ſame nature have been made on venereal and hepatic patients, but as the reſult of them all is the ſame, with very little deviation, a more tedious account would only be tiring our readers, without affording them any more convincing proofs of the analogy. Therefore we ſhall only obſerve, that there is a great and exact affinity between theſe diſeaſes in the vital fluid, and that the method of curing them is nearly the ſame, conſequently we may venture to draw ſome parallel between the venereal virus (when acting in its complicated form on the human body) and the exalted and very acrimonious ſtate of the bile and animal fluids, in the advanced ſtate of the hepatitis. Theſe are queries which open a very extenſive field for reaſoning; and as all new hypotheſis are attended with imminent peril of incurring cenſure, it is moſt prudent to leave this matter to be diſcuſſed by thoſe who are poſſeſſed with abilities more equal to the taſk, and whoſe practice and knowledge of theſe diſeaſes are more extended and familiarized.

DISSECTIONS.

CHAP. I.

Of Patients who died of the Hepatitis.

Case I.

IT has been remarked, in the obſervations on the hepatitis and hepatic flux, that there were ſome juſt grounds for attributing the dyſentery to the liver; and alſo that the unſound ſtate of that viſcus, in thoſe who died of the diſorder, would fully illuſtrate the nature of it, by ſhewing us directly the ſeat of the complaint. From nine diſſections of thoſe who died of the liver, and ſeven of thoſe who died of the hepatic flux, we have ſelected three of each, which we flatter ourſelves will ſufficiently evince the exiſtence of thoſe diſeaſes to be agreeable to the remarks hitherto related Caſe I. in the latitude of 14 ſouth, and two degrees eaſt of London, in April 1774, being ſurgeon of the York Eaſt-

Eaſt-Indiaman, one of the Hon. Company's recruits was taken ill early in the morning. About nine o'clock he was lying on the outer range of the cable near the main hatchway, with his ſtomach preſſing on it; his eyes were amazingly inflamed, and a great diſcharge of frothy ſaliva iſſued involuntarily from his mouth, the heat of his ſkin exceeded any we had ever before felt; his pulſe was very ſmall and quick, ſometimes intermitting, his face very florid, and his neck remarkably red; he was ſlightly delirious, and all the information we could get from him was, that he had for two or three days been very coſtive, and his appetite had left him; that this morning he was ſeized (when endeavouring to riſe) with a fainting fit; that his belly was very much ſwelled, and that he thought he had the dropſy; his breathing was exceedingly difficult and ſhort, and he had a continual racking pain at the pit of his ſtomach. We were much ſurprized to ſee him ſo ſuddenly and violently attacked; for the day before he was on deck with the other recruits, and did not ap-

pear ill. We had then been ſeventeen weeks at ſea, during which time this man had never complained, but was remarked for being a very healthy and active fellow; many of his meſs-mates were then down with the ſcurvy, and the ſhip's company were alſo very unhealthy. On examining the body, we perceived his abdomen very much enlarged, exceedingly hard and tenſe; preſſing it forcibly with both hands, occaſioned a hiccup and ſneezing, ſo that we were in no doubt reſpecting the certainty of the diſorder, accordingly twelve ounces of blood were immediately taken away; a bolus, compoſed of ſix grains of calomel and half a drachm of rhubarb, was next adminiſtered, and an oily clyſter was injected to cool the bowels and ſoften the fœces, (this he could not retain) drinking as often as poſſible a decoction of tamarinds and ſenna, to a pint of which, adding three grains of emetic tartar. At eleven o'clock he was in the ſame ſtate, again twelve ounces of blood were drawn, and the ſame medicines given, with the addition of flannel dipped in hot vinegar, and

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applied over the abdomen. At one o'clock the ſymptoms were more violent, with ſingultus and ſubſultus tendinum, his pulſe ſmall and very quick; on which we took ſix ounces of blood from his other arm and repeated the medicines. We ſaw him again at two o'clock, when he had taken twelve grains of calomel, one drachm and a half of rhubarb, and had drank three pints of the decoction, which contained ſeven grains of emetic tartar. Notwithſtanding theſe applications, no evacuations of any ſort could be procured; on which two ounces of caſtor oil were given him directly, and the ſame quantity repeated in half an hour, but all theſe medicines had not any effect, for he died at three o'clock, apparently without pain. This is a very extraordinary caſe; and to thoſe gentlemen who have not ſeen this diſorder, it will, no doubt, appear that a great quantity of medicine was thrown into the ſtomach: this is moſt readily admitted; but the life of the patient reſted entirely on copious evacuations, for, could the paſſages have been opened, there is not the leaſt doubt but this

this man would have lived a conſiderable time.

He was inſtantly taken on deck, and we proceeded to inſpect the body; we choſe rather to open the thorax firſt, not only to view the ſtate of the lungs, but to obſerve the flexure of the diaphragm. The left lobe of the lungs was in its natural ſtate, and perfectly ſound; the right lobe did not appear diſeaſed, although the inferior part of it was entirely collapſed by the preſſure of the diaphragm, which had protruded very much into this cavity. We cut into the abdomen, and obſerved the ſtomach had not any thing in it, except about three pints of decoction, which had been drank during the illneſs. The duodenum was collapſed at its origin (from the pylorus) which extended below the orifice of the ductus communis cholidochus; the other bowels appeared in their natural ſtate, except a quantity of air (more than is uſually found in the generality of ſubjects) which was pent up in the colon; the bladder contained about a pint of very

very yellow urine, the ſpleen did not appear to have undergone any change, the gall bladder had a ſmall quantity of blackiſh green fluid contained in it, the cyſtic and hepatic ducts were empty, the ductus communis cholidochus contained a little deep yellow fluid, which could not be preſſed into the duodenum, therefore we concluded that the orifice of this duct was contracted in the ſame manner as the upper portion of the duodenum. The portion of the liver which circumſcribes the gall bladder was of a remarkable yellow hue, but as we could not diſcern any rupture of the biliary ducts or bladder, we were at a loſs to account for this appearance. The liver was the object which principally engaged our attention; the large lobe was of a dark black colour, the other portion of a very duſky red: the ſize was ſo amazingly great, that it occupied the greateſt part of the abdomen, from this we were induced carefully to take it out and weigh it by a ſteel-yard. The weight of it was twelve pounds and an half; having cut into the ſubſtance of it, there was not any cyſt, pus, or other matter

matter in any part. From thence we may conclude, that the inflammatory diſpoſition of the bowel, muſt have been very great, and, that if the patient had ſurvived a ſuppuration would have been the conſequence, which from the very large ſtate of the liver, would moſt probably have terminated in death.

Case II.

A Company's ſoldier, who had been under the care of Mr. Veetch, ſurgeon at Fort Marlbro, for a liver complaint, of which he was much better, by an unlucky blow from his drunken comrade was inſtantly killed, and being called in to inſpect the body (relative to the cauſe of his death) we obſerved the following circumſtances; that the ſtomach and bowels were in their natural ſtate, the ſpleen weighed eighteen ounces, and was very turgid, the right lobe of the lungs much diſeaſed, and adhered to the pleura, the gall bladder full of bilious fluid and conſiderably enlarged, the biliary ducts in their natural ſtate, the ſuperior part of the liver adhered very firmly to the diaphragm,

phragm, which was very ſpongy and flaccid; the liver of a dark red colour, and weighed ſeven pounds, in the ſubſtance of this bowel, there were many cyſts filled with yellow pus. This man had been under a courſe of medicine near ſix weeks before his death, and was judged to be recovering; how far the poſſibility may be admitted of this man's exiſting with his viſcera in this ſtate, we ſhall not pretend to determine; certain it is, that he, from a very enfeebled ſtate, was now able to take ſome exerciſe, and his appetite was tolerably good. We have many *inſtan-

* A very remarkable inſtance of this kind has lately occurred in a quadruped, perfectly healthy, and the fleſh very good. The liver of this animal was very ſmall, and full of cyſts and yellow pus, the right lobe of the lungs entirely collapſed, and muſt have been long uſeleſs. Between the lower ribs and liver we took an encyſted tumour of the ſteatomous kind, which weighed four pounds, of a very round ſhape; one ſide of it adhered to the inferior ribs, and the neck which was a ſmall protuberance, was tied to the diaphragm with two ſtrong filamentous ligaments. A ſingular circumſtance is, that this tumour had not any veſſels to nouriſh it, neither was it any where perforated to admit the egreſs or circulation of its contents, the ligaments not apparently having any cavity in them.

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ces in quadrupeds that have been deemed very good food, whoſe livers were in a ſimilar ſtate, which is vulgarly called ſtony, yet theſe animals (to all appearance) have been perfectly healthy.

Case III.

A ſeaman, twenty-five years of age, who had been very ill with a bilious remitting fever, before he was thoroughly recovered was attacked with the ſevere ſymptoms of a liver complaint; his abdomen was very much enlarged with acute pain in the thorax, the enſiform cartilage was drawn cloſe to the edge of the ribs, which occaſioned great pain, particularly in reſpiration; his habit of body coſtive, and his pulſe ſmall, hard, and frequent. In this ſtate he lived ſix weeks, being ſome days much better, and at other times exceedingly dejected and low. A few days before his death he was ſeized with violent horrors and tremors, which never left him, an involuntary evacuation of fœces followed with ſingultus, and in two hours after he expired without any acute pains.

Having

Having removed the body to a convenient place we proceeded to open it, beginning the examination by inſpecting the thorax. The right lobe of the lungs was collapſed, and adhered to the inferior part of the pleura, and alſo laterally to that membrane; the inferior portion of this lobe was much ulcerated, and the bronchia ſtuffed with a glutinous yellow fluid, ſome of which had paſſed to the ſuperior part of the larynx; the left lobe of the lungs was very much inflamed, and rather larger than is uſually obſerved, this perhaps might be occaſioned by the other lobe being unfit for its office, conſequently then a larger and more copious inſpiration would paſs into the left lobe, and by long continuance create this preternatural appearance: neither will it be extraordinary, if we conſider the elaſtic powers of the air bladders, which are capable at all times of containing more air than is generally taken in, in the act of reſpiration; the diaphragm was in its natural poſition; the heart appeared rather larger than uſual, which we attributed to a greater quantity of fluid than

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is cuſtomary being lodged in the pericardium. We cut into the abdomen and found the bowels entirely perfect; the ſtomach and bladder were empty; but on the anterior ſurface of the ſtomach there ſeemed to have been ſome traces of former inflammation, this part looking of a dull red, ſimilar to what we obſerve in long continued inflammations of the eyes; the pancreas was of its common form and ſize, the ſpleen large and very turgid; the omentum in a very decayed ſtate; and that part of the peritoneum which envelops the liver appeared much inflamed, and ſo very tender that it was difficult to handle it; the right kidney was of a much larger ſize than common, but its ureter proportional, yet we did not obſerve any defect in the other, nor did this appear the leaſt diſeaſed. We next examined the liver, which was of a black colour and very firm, the upper and gibbous part adhering ſtrictly to the diaphragm, and created a diſcolouration of that muſcle, which ſeemed to be in an inflamed ſtate; this portion of the liver was of a ſpongy, looſe texture, and ſeperated in many

many parts when gently preſſed; the ligamentum teres was remarkably ſhort, and at its inſertion into the ſmall fiſſure of the lower edge of the liver it was thick and large, which might be occaſioned by the contracted ſtate of the ligament; the ligamentum ſuſpenſorium had not (that we could perceive) undergone any change, though we expected to have found it lengthened in the ſame proportion as the other ligament had been ſhortened. The gall bladder was full of green bile, though not increaſed in ſize; the biliary ducts ſeemed to be more full and extended than is natural, and the orifice of the ductus communis cholodochus was ſpacious and much relaxed; in this duct were three ſmall hardened ſubſtances, of an irregular form, and of a deep yellow colour, which cut like ſoftened wax, but as we were not able clearly to aſcertain what they were, we have declined enlarging on this head, as every phyſical reader may diſſent in opinion from our conjectures.

CHAP. II.

Diſſections of Patients who died of the Hepatic Dyſentery.

CASE I.

WE have before briefly conſidered two caſes of the bilious dyſentery, which were attended with an immediate iſſue of blood; as theſe caſes are nearly alike, and the reſult of the diſſections the ſame, we for brevity ſhall only relate the hiſtory of the firſt, which was the moſt ſpeedy and inveterate; afterwards two other diſſections will be deſcribed, with a view to juſtify and corroborate the opinion we have entertained reſpecting the ſeat of the diſeaſe being in the liver. A young and remarkable healthy man, of a florid complexion and robuſt habit, who had been two years at ſea, uſed a great deal of exerciſe, and was ſingularly noted by all the officers in the ſhip for his activity and induſtry, was unfortunately taken ill with a moſt excruciating

cruciating pain in the ſtomach; he inſtantly applied for relief, and ſaid his ſpirits were very much dejected, and that he was certain he could not live long; we endeavoured, as much as poſſible, to appeaſe theſe imaginations, as it too often happens that mental anxieties, particularly when received and fixed in bigotted diſpoſitions, are very detrimental to the afflicted, and by that means retard the patient's recovery; therefore, as he was ſo much depreſſed, we not only made uſe of our own perſuaſions to enliven him, but alſo continually kept one or two of his meſs-mates with him, to amuſe and divert his attention. The pain in his ſtomach was ſo exceedingly acute, that he was almoſt bent double; his pulſe quick and very ſmall; his countenance more florid than ever we obſerved it (even after laborious employment); his hands trembled ſo much, that he could not carry any thing in a ſhallow veſſel to his mouth, without ſpilling the greateſt part of it; his eyes appeared very dull, and tinged with a thick duſky inflammation; his head ached very much, though not

continually; but he had no inclination to drink, nor any ſickneſs or griping in the ſtomach; and the preceding day had two copious motions, which he obſerved were very hot, but this day neither voided any water, nor perſpired. We carefully examined his abdomen, and could only diſcover a tightneſs and ſtricture in the right epigaſtric region, but from the poſition of his body, we were not able to ſatisfy ourſelves in the examination, for the only thing that merited our attention was, that in forcibly preſſing the poſterior part of the right lumbar region, he ſhrunk from the preſſure, although he did not complain of any particular acute pain thereabouts. Theſe are all the circumſtances we could collect from the patient, or from our own obſervations; accordingly twelve ounces of blood were drawn from his arm, and a mixture compoſed of two ounces of manna, and four ounces of olive oil, with a little oil of peppermint (to make it palatable) was made up, half of this was given directly, and as it continued well on his ſtomach, the reſidue was repeated in an hour after; but nothing

thing was effected by these means, so that at four o'clock eight ounces of blood more were drawn away, and thirty drops of thebaic tincture with mint water administered; two hours afterwards the pain was decreasing, though he could not raise his body; another opiate of twenty drops was taken, judging that if the pain could be abated, gentle laxatives would remove the complaint. One circumstance now attracted our attention, his countenance, from being as before remarkably florid, became pale and yellow, and his eyes very clear, so that his fate appeared to be at a very critical point, and we were much alarmed by such a sudden change: a fomentation of vinegar was applied to his abdomen, a large blister laid over the scrobiculus cordis, and a camphorated julep, with a small portion of antimonial wine (ten drops to a dose) was administered every half hour. At seven o'clock we were sent for, and he informed us that he had just evacuated a very plentiful stool, and thought himself rather more free from pain, but most miserably unhappy and disquieted. His

bed was laid on a large cheſt, as much in the air as poſſible, without being in the current of it; when, after ſtaying with him about ten minutes, he again made uſe of the bucket, but the diſcharge was ſo intolerably fœtid, that there was no poſſibility of ſtanding to leeward of the conveniency: even the men on the other ſide complained, and went on deck to avoid the offenſive ſmell. We requeſted the people in the adjacent meſſes to move farther off, and alſo thoſe to leeward to get out of the immediate drift of the effluvia, leſt the putrid effect of it might create an univerſal ſickneſs. The deck, beams, and carlings around him were all repeatedly waſhed with vinegar, beſides which, a tea-kettle filled with the ſame liquor was kept continually boiling near his bed, that the ſteam iſſuing from the ſpout might counteract the putreſcency of the ſtools; the bucket was half filled with water, and, to make it more commodious, the gun was run in and moved out of the way, that the veſſel might be inſtantly emptied, which was left hanging in the water, keeping two buckets in uſe: by this

this method we avoided the offenſive ſmell from the dirty veſſel, which was always well cleaned before it was wanted; and it is certain that it prevented the evil conſequences which were to be apprehended from a patient ſo dangerouſly ill. We looked at this motion, and did not ſee any excrement, or any thing of a ſtercoreous nature; the water being very red, convinced us the evacuation was pure blood. To be more certain, a pewter baſon was ſuſpended on the water in the bucket, and the next motion proved our ſuſpicions to be well grounded; ten ounces of blood were drawn away, and the opiate with elixir of vitriol repeated; but as we afterwards obſerved that the opiate had no effect, it was diſcontinued, and the vitriol given with ſtrong decoction of bark. Early the next morning, we noticed that the bliſter had not penetrated; his pulſe was low and intermitted; the pain in his ſtomach was entirely gone; his eyes were ſunk; and his aſpect pronounced his diſſolution to be near; bark clyſters with alum were thrown up, the relaxation being too great for him to

retain them. Thus this poor fellow continued until four o'clock the enſuing day, when a ſlight raving came on, a ſmall interval of eaſe ſucceeded, he was placed on the bucket, and expired without a ſigh. The different ſtages were ſo very rapid that they admitted of no palliation, and the event ſo ſuddenly fatal, that we were under the greateſt apprehenſions leſt the diſeaſe ſhould reſume an epidemical form, and be attended with fatal conſequences, but, happily, this did not occur. It is certain, however, that in this ſtage of the dyſentery little is to be expected from medicine. The other caſe, which ſoon followed (where every aſſiſtance of the faculty on board of other ſhips, and on ſhore, were called in to relieve the patient from the impending danger) too clearly demonſtrated the authority of this declaration. There is one great conſolation, however, that this diſorder but ſeldom ſhews itſelf in ſuch a manner, theſe two caſes being all that we have met with in fourteen years practice; nor have we heard of many from the gentlemen of the profeſſion. The body

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was ſoon after removed on deck, and on the abdomen being opened, the ſtomach was found to contain a ſmall quantity of air, with a very little fluid of a brown colour, which we concluded was tea mixed with ſome of the bark; the duodenum jejunum and ileum were quite empty; the colon appeared a little contracted in that portion which paſſes under the liver; the cœcum and rectum externally appeared in their natural ſtate; we ſlit the whole of the inteſtinal tubes, expecting to diſcover ſome traces of diſeaſe, but there were not any that could be fairly ſaid to prove the truth of ſuch a ſuppoſition, for all that could be obſerved was an abraſion of the inferior part of the rectum near the anus, which part of the bowel was more ſoft and flaccid than natural; the offenſive mucus that lined the rectum was carefully waſhed off, but we could not then ſee any marks of inflammation; the portion of the colon under the liver was ſomewhat diſcoloured; the duodenum, where it is perforated with the biliary duct, was tinged with a greeniſh hue; the ſpleen and pancreas

creas were natural; the liver was remarkably ſmall and hard, being of a very dark colour, the inner texture exceedingly firm and compact; the ligamentum ſuſpenſorium was of an unuſual length; the gall bladder contained a ſmall quantity of very viſcid livid fluid; the ductus communis cholidochus was filled with concreted bile; the other biliary tubes the ſame as uſual; the kidneys were not the leaſt diſeaſed; and the bladder contained near a pint of ſaffron coloured urine.

Case II.

A ſeaman of forty years of age, who had been long ill with a bilious remitting fever, from which he had not recovered, being in a low and very feeble ſtate, by expoſing himſelf too early, contracted a ſevere cold, which brought on an acute fixed pain under the enſiform cartilage, ſometimes extending backward to the ſpine; his eyes were dull and tinged with a yellow hue; his urine exceedingly hot and ſcalding; in the morning, (immediately on riſing) a ſtrenuous inclination to vomit

vomit came on, though unable to throw any thing off his ſtomach. The ſecond day after the attack he applied for relief; accordingly his body was carefully examined, but no viſible alteration could be felt or perceived, ſo that a gentle emetic of ipecacuanha only was adminiſtered, facilitating the operation by drinking plentifully of camomile tea; this medicine produced no ſenſible effect. In three hours afterwards, a laxative, compoſed of ſenna and manna, was given; this produced three or four copious motions, and in the evening he was much better; an opiate therefore was given to prevent any relapſe. The following day he appeared conſiderably eaſier, and did not take any medicines; but the next, which was the fourth of his illneſs, he complained of having been very much purged all night, yet had not any pains about him, except a very cold ſenſation about the ſtomach; his pulſe ſmall and rather hard: a purgative, compoſed of rhubarb and calomel, was now inſtantly given, ſupporting him with wine, &c. this had the deſired effect, although the purging was not in the leaſt abated,

abated, his ſtools being yellow and green, of a gelatinous ſubſtance, without any excrement; in this ſtate he continued, ſome days better and others worſe, for nearly three weeks, during which time there were not any portions or ſtreaks of blood mixed with the diſcharge. Now the ſymptoms encreaſed very rapidly, the ſtools were more frequent, and leſs of the purulent ſort, his urine high coloured, though not hot; the pulſe ſoft and quick, frequently intermitting, then riſing and throbbing hard; his countenance cadaverous; the abdomen much enlarged, and yet very ſoft to the touch, ſometimes, particularly towards evening, being of its natural ſize: in this ſtate he exiſted three days longer, when a delirium came on, and he died in the action of voiding his fœces. In leſs than an hour after death his body was much diſcoloured, though not in the leaſt offenſive; we carefully waſhed it with vinegar, and having placed it in a convenient ſituation for inſpection, we proceeded to open the abdomen prior to the inſpection of the thorax, which in the other diſſections had been examined firſt;

firſt; the peritoneum was found to be conſiderably inflamed, and particularly ſo near the ſmall lobe of the liver, which anteriorly adhered very firmly to it. This portion of that viſcus was of a white colour, ſoft and ſpongy; the liver was not at all enlarged, nor had the other external ſurface of it undergone any change. We carefully turned it upwards to examine the concave part and gall bladder; this ſide of the bowel was of a much darker colour than natural, and exceedingly flabby, the gall bladder entirely empty, and its outer muſcular coat much more thick and firm than ever we recollect to have ſeen any; the ſurrounding part of the liver was of a green aſpect, and remarkably flaccid, with many hydatids irregularly interſperſed here; the cyſtic duct, and alſo the ductus communis cholodochus were ſurcharged with a very viſcid bilious ſubſtance; the hepatic duct much contracted and hardened, ſo that we were of opinion that this paſſage had been long obſtructed, and had not admitted any channel for the bile. By cutting into the ſubſtance of the liver, near

near the origin of this tube, we diſcovered many cyſts of yellow pus, which were in a very fluid ſtate, the reſidue of this bowel appeared ſound; the ſtomach contained a ſmall quantity of very thin fluid, of a white colour; the duodenum was much coloured with a yellow cruſt, which adhered very firmly to its inner coat. About the orifice of the ductus communis cholidochus, which was conſiderably extended, there was a ſmall collection of very thin offenſive bilious fluid: the other ſmall bowels, and alſo the colon and cœcum were in a perfect ſtate. The rectum was cut longitudinally; here we could not obſerve any defect, excepting within about half an inch of the anus, where appeared an inflammatory diſcolouration, and the bowel was more ſoft than in a healthy ſtate, which circumſtance is often occaſioned by a procidentia ani, or teneſmus. The kidneys were ſound, and as we uſually obſerve them; the bladder quite empty; the ſpleen and pancreas had not undergone any change; the under ſurface of the diaphragm contiguous to the liver had evident marks of

former

former inflammation; the omentum towards the ala ſuperior was ſomewhat diſcoloured, otherwiſe it was perfect; and the meſentery appeared very dry and contracted. We afterwards ſewed up the abdomen, and examined the thorax; the right lobe of the lungs anteriorly adhered very ſtrongly to the pleura; the inferior portion of this lobe was of a white aſh colour, and retained the inflated air; the other lobe, with the reſt of the contents of the thorax, were entirely perfect; the diaphragm was more convex on the right ſide of the thorax than is natural in ſubjects we generally diſſect.

Case III.

A lad, eighteen years of age, having been as many months at ſea, and hitherto very healthy, though of an indolent diſpoſition, was taken ill with a vomiting, acute head-ach, continual thirſt and lumbago. In this ſtate he came to the medicine cheſt; his pulſe being full and hard eight ounces of blood were taken away, and an emetic of tartar, with ipecacuanha, was adminiſtered; after this had operated

operated well, a laxative was taken, and at going to reſt, an opiate to eaſe the pains and promote the natural ſleep; the next day a bolus, compoſed of two grains of calomel and two ſcruples of rhubarb, was given, drinking freely of thin congee, his ſtools were then more numerous, being of a gelatinous ſubſtance, and he ſeemed much eaſier; in the evening the dormitive draught was repeated, and he ſlept all night undiſturbed by the complaint. On the morning of the enſuing day the dyſentery became more violent, with teneſmus and acute gripings in the inferior region of his body. The ſtraining was ſo violent as to bring down the rectum; this protruſion of the bowel created great heat and pain; his pulſe was more moderate and favourable than could be expected, the ſickneſs entirely removed, and he reſpired freely. The tobacco fumigations relieved the gripings and promoted the inteſtinal diſcharge; but when the genial warmth afforded by this application was gone off, the ſymptoms were equally acute; bladders with water, fomentations, and vinegar made as hot

hot as could be conveniently borne, were continually uſed; the bolus was again repeated, with the opiate at night, and produced the ſame effect. On moving about, the complaints became general, therefore he was confined to his hammock (as much as poſſible), and ſupported with nutritious diet, wine, &c. a bliſter was applied on each arm, and the following day, on his having a little nauſea, an infuſion of ſenna, together with the warm ſeeds, and a ſmall portion of emetic tartar, was drank in ſmall quantities. As there was a great coldneſs about the umbilical region, the fumigation was repeated, and continued as occaſion required; his pulſe being regular and rather low, without any very acute pains; the decoction of bark, with a ſmall quantity of thebaic tincture (five drops each doſe) was taken every two hours this day in ſmall draughts, it ſat well on his ſtomach, and the next day the ſymptoms appeared leſs urgent. Flattered by theſe indications of recovery, we perſevered as before; the ſtools were of

the ſame nature, though now more thin than uſual, and had a ſlight offenſive ſmell; the ſubſequent day ſome portions of a filamentous ſubſtance came away, and continued during his illneſs. Another perplexing circumſtance was, the internal coldneſs could never be removed. In this manner was the poor fellow afflicted, the proſpect growing every day more miſerable; the beſt advice that could be obtained, and every method that had any ſhew of probability, were now uſed to ſnatch him from the jaws of death: but all proved in vain, for on the twelfth day from the attack he expired on the cloſe ſtool, without any appearance of uneaſineſs. This body, as the former, changed very black in about fifty minutes, or an hour after his deceaſe; it was waſhed with vinegar, and removed to be examined, which was done very ſoon, in order to obſerve the defects, before the putrefaction was forwarded too much, which would have baffled and thwarted our reſearches. We began in the ſame manner with this ſubject as with the former, and ob-

obſerved the following circumſtances, viz. the peritoneum conſiderably inflamed, more eſpecially in that part which covers the liver; the external ſurface of the ſmall lobe of this viſcus had ſeveral large hydatids of thick purulent fluid lodged in them; the large lobe had not this appearance; that portion of the liver next to the diaphragm was exceedingly red, flaccid, and ſpongy; the diaphragm was forced up a little convexly into the right cavity of the thorax, and this part of that muſcle was very florid and ſoft, ſeeming to be in a ſtate of inflammation; the under ſide of the liver was ſtudded with papillæ, which contained a very ſmall quantity of watery fluid; the gall bladder was full of yellowiſh green bile, but the biliary ducts were entirely empty. Cutting into the ſmall lobe of the liver, we obſerved many cyſts retaining purulent matter; the large lobe was not ſo affected; the ſtomach quite empty; the duodenum above the orifice of the ductus communis cholodochus was coated with a tough buff-coloured ſub-

ſtance; the remainder of this inteſtine, and the other ſmall bowels were quite perfect. That portion of the colon which paſſes under the liver, retained ſome air, otherwiſe it was in its natural ſtate; the rectum, towards the anus, had three ſmall knotty protuberances on its inner coat, which were of a ſtony ſubſtance, and theſe were all the traces of diſeaſe in thoſe canals; the meſentery and omentum appeared more turgid than common; the kidneys and bladder had not been injured by the illneſs, the latter contained about half a pint of high coloured urine; the ſpleen and pancreas were not altered from their uſual appearance; the thorax was inſpected, and we obſerved that all its contents were perfectly entire, although there was an adhæſion of the right lobe anteriorly to the pleura.

Such are the obſervations made from theſe diſſections; which ſo very nearly correſponded with thoſe of the other patients, who fell victims to the diſeaſe, that we imagine a ſeparate relation of each

each particular caſe and diſſection, or a more minute detail in the clynical part of thoſe already mentioned, would only tire the reader, without adding any illuſtration to the ſubject.

The difference between theſe diſſections and thoſe of the learned Sir John Pringle will be very readily conceived; yet we flatter ourſelves theſe will carry a ſufficient degree of conviction with them, to prove that the ſeat of the diſeaſe is materially different, conſequently the diſorder will not wear the ſame appearance. This is the point we have endeavoured to fix it upon; whether we are right in our opinion, remains to be decided by thoſe who have had more opportunities to determine. All that we preſume to advance in behalf of our concluſion is, that the examinations were made with care and attention, during the courſe of a practice in which no trouble has been ſpared, or opportunity omitted, that could in the leaſt tend to promote our knowledge of the nature and exiſtence of bilious diſ-

eaſes peculiar to Europeans in the Eaſt-Indies. This work is therefore ſubmitted to the public; and if from it any benefits can be drawn, we ſhall moſt certainly deem that period the happieſt of our lives which has been employed towards alleviating the calamities and diſtreſſes of the diſeaſed.

FINIS.